# THE DESIGN AND APPLICATION OF A DECISION-MAKING PROCESS FOR IDENTIFICATION OF CRITICAL CURRICULAR VARIABLES WHICH AFFECT OPTIMAL APPLICATION OF CAI IN A BACCALAUREATE SCHOOL OF NURSING

by

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#### CHAPTER I

#### INTRODUCTION

The last fifteen years have been both exciting and frustrating for nursing education. During this period, much attention has been given to new instructional procedures which are designed to lead to more effective and efficient instruction. The innovations have been, for the most part, responses to the major problems now facing educators at most institutions of higher education, including the professional schools.

Major problems are related to the increasing diversification of student populations, tremendously rapid growth in the amount of knowledge to be learned, severe and continued decline in resources allocated to education, and demands for increased educational accountability in the face of rising education cost to both society and the student.

In a discussion of the reasons for determining and implementing innovative teaching methods in nursing education, Kemp cites the rapid growth in the amount of knowledge to be learned as the primary motivating factor (Kemp, 1977). One need only be aware of the increasing numbers of nursing journals being published, along with a constantly new supply of nursing textbooks, to have an appreciation of the rapidly expanding content within nursing education.

Torres contends that, whether we like it or not, we must change

the way we educate to some degree because of the trends in education (Torres, 1974). She cites a questioning of values related to the purposes of education, a vast increase in the amount of available knowledge, increasing emphasis on remediation and assisting minority groups, and governmental agencies mandating differing educational policies.

The National League for Nursing Department of Baccalaureate and Higher Degree Programs reviewed over fifty baccalaureate nursing programs and found that the most dynamic change recently is a shift in the nursing curriculum from the medical model to an integrated approach. Integration, in this sense, means "blending the nursing content in such a way that the parts or specialties are no longer distinguishable" (Torres, 1974, p. 2).

Inherent in this type of curricular structure is the possibility that critical elements might be lost. Curriculum is implemented by a group of faculty members, generally in a team-teaching approach; therefore, consistency in terms of flow and content may be lost.

An examination of the current issues just mentioned leads to the conclusion that none of these problems are likely to lessen or disappear in the near future and that all have an impact on nursing education. Nursing educators are looking for more effective educational options which may now be within reach.

# Need for Effective and Efficient Use of Technology

Nursing is far behind other disciplines in the use of technological advances for purposes of education. Nursing education's position

thus far has been one of "wait and see" rather than keeping abreast of the situation (Huckabay, 1979, p. 288). Nursing practice, on the other hand, is rapidly becoming automated. Bashor stated that "we are rapidly becoming a society of monitors" (Bashor, 1962, pp. 24-25). The student nurse who is not computer literate, then, is not being adequately prepared to function in the practice area.

To have some appreciation of the technological advances in nursing, one need only visualize the Florence Nightingale nurse with her lamp, and little else, then think of the world of monitors, computers, and the vast maze of technological advances in the nursing practice arena today. To be effective and accountable, education must keep up with technology.

## Movement Toward Systematic Approaches to Instruction

The lecture as a teaching method is perhaps the oldest teaching strategy for large group teaching. Several disadvantages may be inherent in this method. It fosters dependence on the teacher as the final authority, tends to emphasize the desires and wants of the lecturer, may encourage the retention of facts as an end to themselves, and is subject-matter dominated. Little attention may be given the learner and his individual needs. The formal lecture, according to deTornyay, creates a passive type of learning that tends not to be retained (deTornyay, 1971). The lecture method of teaching has been overused or misused. Perhaps technological advances provide a better means for the achievement of selected learning objectives.

The lecture does have some advantages that need not be overlooked.

Experience and expertise of the teacher can be a real encouragement to students. Fact and ideas that might appear lifeless by other methods of teaching can be vitalized by the teacher. A questionable advantage is that it allows the teacher control and takes less preparation time than other methods.

Lecture-discussion is probably the most common teaching methodology in classrooms today. This method provides less formality than the formal lecture, allows participation of students, and employs various supplemental materials such as audio-visual aids. Bugelski has pointed out that the educational world has been slow to take advantage of technological advances that can make the teaching/learning situation more effective (Bugelski, 1964).

From lecture and a combination of lecture-discussion, educators began to utilize teaching for discovery by exposing the learner to a variety of phenomena, events, facts, and experiences hoping she will discover for herself the generalizations and specifics of the learning situation (Harrison, 1969). According to Bruner, the act of discovery is not restricted to the act of finding out something that was here-tofore unknown to mankind, but rather is a form of obtaining knowledge for oneself by the use of one's own mind (Bruner, 1961). Empirical evidence for the value of discovery learning is rather sparse but it does actively involve the learner and tends to promote self-concept (deTornyay, 1971).

Educators are increasingly committed to accountability to students (Kemp, 1980). Traditionally, teachers taught a class rather

than individual learners. The shift to innovative teaching strategies is an attempt to recognize that learners are individuals and to maximize the learning/teaching interface between students and faculty (Guinee', 1978).

Moving increasingly in the direction of the individual learner, individualized instruction began to be the subject of educational strategists in the mid to late 1960s (McKeachie, 1966; Sorensen, 1968; and Lysaught, 1969). Availability of technology today moves the teaching/learning arena even further along the path of automation. There is no question that the teacher's role is changing from one of conveyor of information to that of motivator, diagnostician, and guider. With this change, comes a need for direction on the part of the teacher.

## Nursing Faculties Lack Expertise in Implementing Educational Technology

If teachers are to utilize educational technology, whether it be filmstrips or computer-assisted instruction, they must acquire new expertise. Few nursing educators have developed skills in computer technology; therefore, relatively few schools of nursing are making significant use of computer-assisted instruction.

#### STATEMENT OF THE PROBLEM

There is a need for a model which will guide nursing educators in making decisions about the critical curricular variables involved in the implementation of computer-assisted instruction. Effective decision makers " . . . make decisions as a systematic process with

clearly defined elements and in a distinct sequence of steps"
(Drucker, 1967, p. 113). A well-designed instructional model should help a faculty make good decisions about implementing computerassisted instruction in a baccalaureate school of nursing.

#### PURPOSE OF THE STUDY

The purpose of the study was to develop an instructional model for affecting optimal application of computer-assisted instruction in a baccalaureate school of nursing. A possible model was then developed and an example of its application is included.

#### PERSPECTIVE OF THE STUDY

This chapter has dealt with the problems in nursing education and the need for efficient and effective use of educational technology; therefore, an instructional model to assist in the optimal application of computer-assisted instruction has been presented as a need.

Chapter II contains pertinent research and opinion of experts regarding computer-assisted instruction, learning theories, and instructional design.

Chapter III describes the development of a decision making process for implementing computer-assisted instruction in a baccalaureate school of nursing.

Chapter IV applies the process to a specific situation in a baccalaureate school of nursing.

Chapter V contains the summary, conclusions, and suggestions of topics for further research and development.

#### CHAPTER II

The purpose of this study was to develop and apply a decision making model for identification of critical curricular variables which affect optimal application of computer-assisted instruction (CAI) in a baccalaureate school of nursing.

This chapter deals with CAI, both in education generally and in nursing education. Components of good instructional design, including learning theory, conceptual framework, and principles of design, will be discussed. The development and use of models for decision making will be outlined. Finally, information in this chapter led to the development of the model described in Chapter III.

#### REVIEW OF THE LITERATURE

# Computer-Assisted Instruction

Two extensive surveys investigating the use of computers and the learning process in higher education are the Massachusetts Survey of 1974 and a 1967 survey done by the Southern Regional Education Board. The 1967 study showed that engineering was the academic field which made the greatest use of computers for instructional purposes with 35.2% of undergraduate students involved. Business was next with 26% and the health professions accounted for only 0.1% (Rockart and Morton, 1975, p. 182). In 1974, business was first with 23.5% of students, followed by engineering at 20.6%. Health professions in 1974 accounted for only 0.4% (Rockart and Morton, 1975, p. 180).

## Computer-Assisted Instruction in Nursing Education

Bitzer and Boudreaux first wrote of using computers in the teaching of nursing in the late 1960s. Computer-assisted instruction was compared with the traditional approach in learning maternity nursing (Bitzer and Boudreaux, 1969). The greatest advantage of this type of instruction, at that time, was seen to be a saving in time for the student. Findings indicated that Programmed Logic for Automatic Teaching Operations (PLATO) students learned the same amount of material in from one-third to one-half the time required in the class-Observations were made that students tend to attribute human characteristics to the computer, often expecting human-like responses. These investigators contend that computer-based education is intended to supplement rather than supplant the teacher. Unique features of CAI make it an ideal instructional method for training in general cognitive skills. Other advantages are that it offers a degree of stability to situations in which there is a shortage or a rapid turnover of faculty. Larger numbers of students can be taught without a comparable increase in faculty (Bitzer and Boudreaux, 1969).

In 1973 at the Ohio State University School of Nursing a basically tutorial program of primary instruction about closed drainage systems of the chest, "Bottle", was integrated into a surgical nursing course for junior level students. Six self-instructional modules were provided, three of which were required. Many of the students completed all six modules and responded positively to an attitude questionnaire. One hundred fifty students participated and all gave positive feedback

regarding this method of instruction.

Two faculty members at the University of California School of Nursing at San Francisco introduced computer-assisted instruction into a graduate psychiatric nursing class for the first time (Kamp, 1974). The course was experimental in nature and dealt with psychotherapeutic nursing. A variety of CAI material was used and was an integral part of the course, along with seminars and clinical experience. Several beneficial effects were described by the authors. One graduate student who participated in the experimental learning situation published an article in which she commented favorably concerning the entire experience (Farnsworth, 1974).

At the University of Michigan School of Nursing in Ann Arbor, a computer-assisted instructional problem-solving exercise was developed for an epidemiology course (Donabedian, 1976). The experiment was not research based but evaluations from faculty and students were highly favorable.

One hundred junior level students enrolled in medical-surgical nursing at the University of Illnois Medical Center, College of Nursing, for Winter and Spring Quarters, 1976 participated in a research study which examined the effectiveness of a computer-assisted program in post-operative nursing care (Kirchoff and Holzemer, 1979). Students did learn the material on the PLATO program and different learning styles did not appear to penalize a student's learning on this CAI program. Students reported that learning on the PLATO system was enjoyable.

One of the most recent and well-conducted research studies has been done at the University of California at Los Angeles School of Nursing (Huckabay, 1979). Thirty-one graduate nursing students in a primary care course were involved in the study which investigated the effect of CAI versus lecture-discussion method of teaching on cognitive learning, transfer of learning, and affective behaviors of nurses. Although the subjects using the CAI approach did not acquire significantly more knowledge than subjects in the lecture-discussion situation, there were significant differences between the groups in their post-test scores on cognitive learning. The CAI group performed better than the lecture-discussion group in cognitive learning and transferred more of what they had cognitively learned to case study situations. No significant differences were found between the two groups on affective behavior.

In 1975, a survey was conducted of two hundred schools of nursing. At that time only eleven schools were using any form of computerassisted instruction (Levine, 1975).

In the area of continuing education in nursing, only three actual programs were described in the literature. In 1972 a CAI course consisting of a group of nine related but independent units concerned with intravenous therapy, "Care of and Feeding by Veins", was described by three faculty members at Ohio State University (Reed, 1972). This article reviews the major assets of CAI and how these can be applied in the case of continuing education. Being careful to avoid offering CAI as a panacea to the problems of nursing, the authors suggest it is

a promising form of educational technology.

Three CAI programs (Septic Shock, Care of and Feeding by Veins, and Leadership and Management) were utilized at George Washington University Medical Center in an experimental study involving continuing education for registered nurses (Valish, 1975). The purpose was to determine whether CAI programs as an innovative method of educational technology would be an efficient and effective source for verifying and augmenting clinical knowledge in nursing. Findings demonstrated verification but not augmentation of clinical knowledge of nursing.

A limited study was done at Cape Cod Hospital in Hyannis, Massachusetts involving the use of CAI in teaching Cardio-pulmonary Resuscitation (CPR) to thirty-four registered nurses employed at a community hospital. Time spent with the computer ranged from thirteen minutes to two hours and twenty-two minutes. User satisfaction was reported to be generally high but nurses felt that the tests used to measure their CPR knowledge were unfair. Several questions are left unanswered in this article (Hoffer, 1976).

# Computer-Assisted Instruction and Teaching Strategies

CAI effectively facilitates a number of well established teaching strategies. Drill and practice, tutorial, simulation and gaming, problem-solving, and discovery are all possible strategies suited for computer application. CAI is, according to Collart, extremely compatible with a multimedia approach where the programs are complemented by slides, cassette tapes, or video-tape (Collart, 1973). Assuming

the student has learned a concept which needs to be practiced, CAI will relieve the nursing instructor of the "drill and practice" routines which require great amounts of time and energy.

A few CAI programs are basically tutorial in nature. They represent primary instruction about specified subjects and, in some cases, actually replace the classroom lecture method.

Simulation and gaming, also available through CAI, are strategies that have been used in industry and the armed forces as well as education. Nursing education has been among the last to utilize this effective strategy. Simulation and gaming will permit a "model of reality for the learner in a controlled situation that allows the learner to experiment and think out all the specific outcomes of an intervention" (Collart, 1973, p. 530). DeTornyay believes simulation in nursing education is not used as much as it should be. She contends students could initially become involved with a "hypothetical" patient through a computerized program, identify nursing problems, test solutions, and find out the results of their interventions without involving "real patients" with all the inherent dangers requiring close supervision and consequent loss of student experimentation and without the problems involved in the clinical areas that are already scarce in the community (deTornyay, 1970).

In a computer simulation of a psychiatric interview, the dialogue mode is used to interpret the learner's input. This dialogue, or socratic, method or strategy is an exciting possibility for future implications in nursing education, particularly in the area of evalu-

ating assessment skills of nursing students (Starkweather, 1967).

The problem-solving mode or strategy can also be effectively utilized with CAI. For example, at Ohio State University College of Medicine, the computer system will perform mathematical calculations, calculate calories, convert measurements to centimeters, calculate pCO<sub>2</sub> values via the Henderson Hasselblach equation, convert weights to kilograms, and convert between Centigrade and Fahrenheit temperature scales (Collart, 1973). This same university system incorporates a tutorial evaluation system by which medical students can evaluate their own progress toward meeting curriculum objectives and early be alert to deficiencies that may be remedied (Williams, 1971).

The use of questions is a major strategy in the CAI programs being initiated. Collart cautions that there is a great difference in teaching by question versus testing by question, and that each type of question serves its own purpose (Collart, 1973). As questions are utilized in an effort to help the student learn by discovery, branching is brought into the picture. For example, the instructor will program the computer to direct the student in specified directions to 'discover' new information. Gilman, in 1969, said that our utilization of branching was at that time in its infancy (Gilman, 1969). Since that time, branching techniques have been refined and are being utilized in a great many instances that are judged to be effective learning situations.

## Effects of Computer-Assisted Instruction on Faculty

Students are not the only ones who learn from the computer,

according to Collart (Collart, 1973). The teacher is able to evaluate student progress at the same time she is refining and improving her teaching skills. CAI leaves absolutely no room for last minute preparation or teaching that is not solidly based on goals and behavioral objectives. More preparation time is required in the beginning of the course of instruction, but savings in time can be expected in the long run. Effective and valid research to substantiate this point is yet to be carefully devised and conducted. The case for independent study and self-directed learning techniques is becoming increasingly well established, both in general and nursing education. Brudner has pointed out that "a primary educational goal is to prepare the individual to solve problems independently and to respond to situations which he encounters as a student, worker, family leader, community member, or private citizen" (Brudner, 1968, p. 970). Further support for this theory comes from Suppes who states, "the more an educational curriculum can adapt in a unique fashion to individual learners--each of whom has his own characteristic initial ability, rate, and even 'style' of learning--the better the chance is of providing the student with a successful learning experience" (Suppes, 1966, p. 221). CAI systems were designed for just this task.

Dale focuses on the concept of CAI from the faculty members view-point in talking about its uses, advantages, and limitations, as well as the strategies available through CAI for the nurse educator (Dale, 1969). CAI is compared to a textbook that differs for every person. Dale is quick to point out that CAI must be an interrelated part of

the whole of modern nursing education theory rather than a segregated element of instruction.

Collart wrote that faculty who author CAI programs will soon discover that essential steps and relevant points of information have been omitted and that learner responses may reveal unexpected ambiguities or gaps in student knowledge (Collart, 1973). Describing the necessary attributes for the author of a CAI program for nursing education, Collart says she must show a mastery of the relevant discipline, a working knowledge of learning theory and test construction, a basic understanding of the potential of CAI, and a working vocabulary of CAI terminology. These high standards and requirements place demands on the conscientious nursing education faculty that must be met if we are to fully utilize this important and timely means to better our profession.

CAI forces faculty to pay careful attention to the task of writing objectives. While objectives are not unique to CAI, they are critical components of this method of instruction. New behavioral objectives do not have to be written simply because CAI is being utilized; but often sufficient attention is not devoted to identifying objectives with traditional instructional methods (Stolurow, 1970).

Stolurow has said that "computer-based systems can add enormously to both the rate at which research on instruction can be accomplished and to the accuracy of the results produced" (Stolurow, 1964, p. 42). The variables of learning can better be understood in light of the data collection and data reduction capabilities of the modern computer. Faculty time spent in routine activities, as discussed earlier,

is almost always decreased. More time is available for the instructor to practice the "art" of teaching as a result of applying this "science" of teaching. Caution is offered to be sure nursing educators using this method of instruction are thoroughly familiar with and enthusiastic about this method. In fact, success of CAI in nursing curriculums is contingent upon faculty committment to its use.

Collart contends that individualized self-instructional methods such as CAI will force nursing faculty to identify the "truly unique role of the human instructor" (Collart, 1973, p. 532). Computers are described as a transmission system to convey knowledge, "super-disciplined" devices that really do no more than they are told to do. They replace faculty responsibilities only in the same way cardiac monitoring devices replace the coronary care nurse's checks and observations (Collart, 1973). Dale graphically described this point of view when he stated, "CAI will not replace the teacher, but will 're-place' the the teacher" (Dale, 1969, p. 646). B. F. Skinner has wisely commented, "Any teacher who can be replaced by a machine . . . deserves to be" (Skinner, 1958, p. 976).

# <u>Limitations of Computer-Assisted Instruction</u>

As with any teaching strategy, or educational technology, CAI has some limitations that need to be discussed here. One is the initial time investment by the faculty member in developing CAI programs and materials. Collart estimates that 120 to 150 hours may be required to author one hour of effective, terminal-tested CAI program material (Collart, 1973). Once the faculty member gains experience and

becomes more adept in CAI strategies, the time per computer-student interaction becomes less significant (Harless, 1967).

Cost is seen as a major deterrent to CAI even though true cost figures for most CAI programs are difficult to obtain. Many independent factors determine the costs of both program development and computer operation expenses. These, in turn, are influenced by whether the computer hardware is used exclusively by the nursing faculty and students or whether, as is the case in most instances, shared with other disciplines. The number of users who share the CAI programs also influences the cost greatly. The more utilization provided, the lower the cost per student contact. The cost of programs in a large university setting is relatively minimal related to traditional methods of instruction.

Lack of standardization has been identified as another potentially avoidable but increasingly frustrating problem. The diversity of both hardware and software greatly complicates the sharing of CAI programs and/or courses. One need merely be aware of the large numbers of computer languages available to appreciate this potential problem. As a result, off-the-shelf CAI programs are generally not available. The nurse educator who successfully designs, programs, and markets nursing CAI programs will have provided a real service to nursing education. The educational system, particularly as it relates to nursing education, would be well advised to act together in the support of interchangeable hardware systems with a universal computer language. This will happen, but not in the immediate future.

Another problem or limitation of CAI is the number of students who can utilize a terminal at one time. Sutter believes that CAI need not restrict an interpersonal learning environment. Paired students may be assigned to one terminal and can "provide interpersonal stimulation as well as serve a very practical interest" (Sutter, 1969, p. 156).

## Summary

The future of higher education, and more specifically of nursing education, is being molded by the computer and all it entails. Atkinson, DeCecco and Crawford, deTornyay, Gagne, and Stolurow and Davis, whose studies are cited earlier in this chapter, strongly encourage nurses to be bold in their pursuit of better and more efficient teaching strategies. They suggest CAI is one way to show that boldness and futuristic bent to nursing education (Atkinson, 1968; DeCecco, 1975; deTornyay, 1971; Gagne, 1962; Stolurow, 1970).

Carroll pointed out that quality instruction, whether it be traditional lecture-discussion or modern computer-assisted instruction, will heighten student interest and result in greater changes in learner behavior which is the goal of the entire teaching process. That quality instruction can be efficiently provided by computer methods (Carroll, 1970). The end result (student learning evidenced by change in behavior) justifies experimentation and research into the means (teacher strategies and methods of instruction).

# Instructional Design

<u>Definition</u>. The literature reveals several attempts to outline the major skills required for instructional design. Corey lists the

necessary competencies for instructional design as:

- Familiarity with the behaviors that constitute the objectives of instruction.
- 2. Familiarity with the physical, scholastic, psychological, and social characteristics of the population to be instructed.
  - 3. Competencies in the analysis of gross behavioral objectives.
- 4. Knowledge of the unique characteristics of various types of instructional environments.
- 5. Competence in procuring and interpreting "feedback" on the consequences of the instruction (Corey, 1967, pp. 20-21).

Diamond emphasizes specific procedures and actual experiences rather than a theoretical approach to instructional design (Diamond, 1975). This author describes the process of production and implementation in a step-by-step discussion of component design, implementation, and revision, keeping objectives in perspective, selecting media, and phasing out a project.

- Step 1 Stating objectives
- Step 2 Design of evaluation instruments and procedures
- Step 3 Selection of internal design format (media selection)
- Step 4 Evaluating and selecting existing materials
- Step 5 Design and field testing of new materials
- Step 6 Logistical coordination
- Step 7 Implementation, evaluation, and revision

Unique to this source is a discussion of the ways in which successful instructional designers are able to extricate themselves from a project so that other faculty may continue to implement the

program.

Glaser sets forth four steps describing the activities of an educational designer.

First, he has analyzed the behavior under consideration and specified some performance which will represent a standard of competence to be attained at the end of a sequence of educational experiences.

Second, he has specified the characteristics of the student that are to be taught.

Third, he must guide or allow the student to go from one state of development to another and construct the procedures and materials that are to be employed in the educational process.

Finally, the educational designer must make provision for assessing and evaluating the nature of the competence achieved by the learner in relation to the performance criteria that have been established (Glaser, 1965, pp. 771-772).

Brown defines instructional development as "a series of approaches which, through successive approximation (trial and error) in an operational system, strive to obtain optimum benefits for all students" (Brown, 1973, p. 55). He further contends that instructional development is based on a systems concept where all "aspects of instruction constantly strive to improve themselves and work toward objectives" (Brown, 1973, p. 55). The steps in instructional development, according to Brown, are:

- Step 1 Selection of an objective
- Step 2 Task analysis
- Step 3 Analyzing the components of the task
- Step 4 Devising instructional and/or learning sequences, strategies, or approaches
- Step 5 Testing and evaluation
- Step 6 Revision (Brown, 1973, p. 64).

Popham discusses instructional decision making in much the same terms as those referenced above. Beginning with the specification of objectives in terms of observable student behavior, followed by preassessment of the learners to save unnecessary instructional time or learn that entry behaviors are lacking, to selecting the learning activities based on learning principles, Popham concludes with the evaluation process (Popham, 1970, p. 17).

After attention has been given to learning theory, the elements of instructional design in this chapter will be focused on conceptual framework, objectives, sequencing of learning activities, evaluation, and feedback.

## Learning Theory

Crucial to the task of designing instructional sequences and activities is an understanding of the process of learning. Learning is a process by which changes in behavior result from experience or practice. There are a number of theories of learning which are sometimes divided into two main groups. One is the stimulus-response theory which attributes all learning to the forming of habits. The other group stresses cognition, or the act of knowing, above the importance of habit.

Types of Learning. A brief description of classical conditioning, operant conditioning, chaining, verbal association, discrimination learning, concept learning, principle learning, and problem-solving is offered in the following paragraphs.

Classical conditioning, or signal learning, involves the learner's making a general, diffuse, or emotional response to a signal. Pavlov's dog, who was conditioned to salivate with the ringing of a bell, is an example of classical conditioning. Gagne did research using the human eyeblink as another example of conditioned response (Gagne, 1970).

Operant conditioning, also referred to as "stimulus-response" learning involves the learner's acquiring a precise response to a discriminated stimulus. Skinner is well known for his stimulus-response model of instruction (Skinner, 1938).

Chaining is another type of learning which is related to the stimulus-response model and involves a series or sequence of stimulus-response units which the preceding S-R unit acts as a stimulus for the next S-R unit. One example may be donning a pair of sterile gloves (Huckabay, 1980).

<u>Verbal association</u> is the learning of chains that are verbal in nature. This type of learning is confined primarily to humans because the internal links may be present in the individual's previously learned language repertoire (Underwood, 1963).

<u>Discrimination learning</u>. With multiple discrimination or discrimination learning, the learner must not only be able to differentiate between two or more stimuli but must also deliver the appropriate response to the discriminated stimulus or stimulus pattern. DeCecco suggests that, when discrimination learning occurs, behavior has come under the control of the environment (DeCecco, 1968). An example of this type of learning may be when the nurse is able to discriminate and differentiate between the signs and symptoms of hypotension and

hypertension.

Concept learning is the next highest level of learning. Huckabay contends there are three major schools of thought in explaining the process of concept formation (Huckabay, 1980). There are cognitive theorists, behaviorists, and those who favor the computer model of cognitive functioning. Cognitive theorists deny any role for external reinforcement and assert that the development of important cognitive processes is primarily a method of inner organization and coordination (Ausubel, 1966; Bruner, 1956; Piaget, 1966). The behaviorists believe that a concept is formed when "response emitted in the presence of the discriminative stimulus is differentially reinforced" (Anderson, 1966, p. 395).

Huckabay refers to the information approach based on a computer model of cognitive organization and functioning as one of the most eclectic positions in recent years (Huckabay, 1980). The general idea of this model is behavioristic, but it uses a more substantive view of the nature of information as well as the cybernetic principle of a control system that is both (1) "sensitive to feedback that indicates behavioral error and (2) differentially responsive to such feedback in ways that correct the existing error or discrepancy" (Ausubel, 1966, p. 11).

<u>Principle learning</u> involves the learner's acquired capability to relate two or more concepts to each other (Dececco, 1968, Gagne, 1970). Principles may also be referred to as rules and guide the individual's behavior in meeting a variety of particular situations and in solving problems.

<u>Problem-solving</u> is regarded as the most difficult and complex type of learning. It requires two or more previously acquired principles to be related or combined so that a new capability can be demonstrated. The scientific method is a form of problem-solving. Gagne relates problem-solving to discovery learning which will be discussed in a later section of this paper (Gagne, 1970).

#### Models of Instruction

A study of computer-assisted instruction, as well as more traditional methods of instruction, demands that careful attention be given to different models of instruction. Mastery and discovery learning are appropriate for CAI and must be considered in a discussion of instructional design, particularly in a baccalaureate school of nursing where mastery of curricular content is, in many cases, required. The baccalaureate nurse is expected to be a "problem-solver" and "discover" answers and solutions to problems; therefore, the discovery model of instruction is an appropriate model of instruction for baccalaureate nursing education.

Mastery learning theory implies that, given enough time and optimal methods of instruction, most students should achieve the objectives of a learning task at the 85--90% level. This position is best elucidated by Bloom in his identification of five essential variables of his model which are strategies for learning today (Bloom, 1968). The variables are aptitude for particular kinds of learning, quality of instruction, ability to understand instruction, perserverance, and time allowed for learning.

The major implication for education is that mastery learning produces more learning than more traditional methods of instruction is able to do and that a more positive self-concept for the learner results from the greater sense of achievement (Huckabay, 1976). Peterson refers to the educator as a transfer agent who transfers expert performance capability from expert to novice by means of consciously planned instructional environment in a mastery or competency-based instructional setting (Peterson, 1979). The frame of reference changes the focus of instruction to organization in such a way that progression through the program insures that performance capability is actually being developed by the shift from "consideration of segmented content and skill areas to a consideration of total integrated performance capability" (Peterson, 1979, p. 17).

Competency-based or mastery learning is used at the Central Michigan University external degree program in the form of learning packages. In 1976, ten packages were being used with twenty-six more in the developmental stages (Murray, 1976). Mastery education assumes that "the competencies required for successful performance in a specific role or occupation can be identified and that an educational program can be conceived which will enable students to develop these competencies" (Porter, 1978, p. 7).

At Ohio State University, a preclerkship medical curriculum using competency-based instruction is currently being utilized, along with a tutorial evaluation system (TES) which enables the student to gauge his own progress (Williams, 1971).

According to Shute, mastery learning can no longer be viewed as a

choice, rather it is a must (Shute, 1976). Advantages are that mastery learning "identifies criteria for learning, permits self-pacing, enhances motivation and emphasizes learning, enhances student-faculty relationships, develops student self-direction, enhances student self-image, reduces attrition, and fosters creative teaching" (Shute, 1976, p. 38). Disadvantages identified are resistance of faculty, lack of prepared faculty, lack of planning time and preparation time, lack of facilities, faculty-student ratio too large, students not prepared for responsibility, college calendar, and problems of coordination of theory and practice" (Shute, 1976, p. 38).

Discovery learning has almost as many definitions as authors who write about it. Those teaching situations where the learner achieves the instructional objectives with limited or no guidance from the teacher may be called discovery learning (Wittrock, 1966; DeCecco and Crawford, 1974). Bruner is one of the major proponents of discovery learning (Bruner, 1961). Bitzer discusses the need to enhance critical thinking skills and contends this may best be accomplished through use of discovery learning. Motivation is enhanced with the type of learning because the learner has the reward of self-discovery and control over the flow of information (Bitzer, 1966). An experimental study was done with discovery, or inquiry, teaching utilizing computer facilities and results showed the discovery group gained significantly more knowledge than the control group (Bitzer, 1966).

# Learning Style

Cognitive style or learning style is the way or ways in which a

person seeks meaning or knowledge. Each individual has a particular style for making sense out of his environment. Theoretical elements in cognitive style include the ability to obtain meaning from spoken words, the ability to obtain meaning from written words, the ability to obtain meaning by spoken numbers, and the ability to gain meaning from written numbers (Lange, 1979). Tools are available for determining learning style and are used in an attempt to best match the individual learner to the style of learning best suited for him.

# Domains of Learning

Categories or domains of learning are classified by Bloom as cognitive, affective, and psychomotor (Bloom, 1956). Cognitive learning involves the recall of information, and the process of analysis, synthesis, and evaluation. Affective behaviors involve emotions or those that may not be readily observable, but may be evident in values placed on what is being learned or attitudes toward people or things. Psychomotor behaviors are those requiring neuromuscular coordination. A skill may be either psychomotor or cognitive. A psychomotor skill is the habit of making complex motor responses without conscious thought (Guinee', 1978). The utilization and leveling of the three categories of learning is necessary since competencies in different domains are developed in different ways.

## Andragogy

Andragogy is the general art and science of helping adults to learn. Malcolm Knowles, who is considered to be the principal proponent of andragogy, has set forth four assumptions about the characteris-

tics of the adult learner. They are at the heart of the movement of the self-concept from dependency to self-directedness and include the idea that an adult's self-concept will move from dependence to self-direction during the learning process, the idea that experience comes with maturity, the idea that the adult's developmental task promotes learning readiness, and that the subject-centered orientation of youth changes to problem-centeredness as the individual ages and matures (Knowles, 1973). Three specific learning characteristics of the adult are knowledge orientation, goal orientation, and an activity orientation (Houle, 1961). Spike cautions against making assumptions about students and the manner by which they learn. He encourages building upon diversity of learning styles and patterns as the adult learner presents them (Spikes, 1976).

## Conceptual Framework

The philosophy of any institution of higher learning provides the basis for the individual nursing program's conceptual framework, or its statement describing the relationship among broad concepts. The philosophy usually contains reference to the theory which provides structure, consistency of language, and thought to the conceptual framework (Anderson, 1979). The most widely used theory is the general systems theory (Von Bertalanffy, 1968). Other theories which are frequently used for nursing conceptual frameworks are the developmental theory (Freud, 1949; Erickson, 1949), adaptation theory (Seyle, 1956), and needs theory (Maslow, 1970). The individual program chooses a theory on the basis of preference, not on the basis of what is considered right or wrong.

In their analysis of nursing curriculum, Yura and Torres cited four concepts which are used most frequently in conceptual framework design. They are man, health, society, and nursing (Torres and Yura, 1974). Anderson describes a conceptual framework as a "statement describing the relationship among broad concepts" (Anderson, 1979, p. 9). The key term is relationship.

## Principles of Design

Behavioral objectives, sequencing of instruction, evaluation, and feedback are broad principles of design and deserve clarification. The following paragraphs focus on principles of design.

Objectives. The conceptual framework is operationalized in objectives which are statements of the behavioral outcomes expected in the learner as a result of the experiences provided in the curriculum. Very early in the planning phase of instructional material, the educational goals are stated explicitly and specify what the learner should be able to do at the conclusion of the instruction. The stated educational goals are then translated into clearly-defined behavioral objectives. An abundance of literature deals with the formulation of behavioral objectives and both criticism and praise can be found. Anderson and Faust define behavioral objectives as tools "that the teacher can use in deciding what material . . . to include and exclude, in selecting teaching teachniques, in planning and conducting the evaluation of instruction, and in communicating precisely to others the goals that instruction has" (Anderson and Faust, 1974, p. 52).

Mager focused attention on the specification of behavioral

objectives and identified this activity as a key instructional design skill. There is a danger in assuming that, once an educator is proficient in identifying behavioral objectives or outcomes, the instructional procedures required to meet the objectives will follow automatically (Mager, 1962). According to Mager, a good behavioral objective should answer three questions: (1) what is the student given?, (2) what should the student be able to do or say?, and (3) when has the student achieved the objective? (Mager, 1962). Objectives are stated in terms of the student's behavior, not the teacher's, and should be specific enough to break down the educational goals into the component skills required to lead a student from where he is at the beginning of instruction, to where the teacher would like him to be at the end of instruction (Davis, 1974).

Measuring the student's achievement of the objectives, or developing appropriate assessment procedures, is the next step (Popham, 1971). After development of the criterion-referenced learning evaluation or test, a task analysis is employed in breaking down each of the objectives into required component objectives. As Anderson and Faust explain, "a completely developed task analysis will present a detailed description of the component behavioral skills that the accomplishment of the task entails, the relationship among those components, and the function of each component in the total task" (Anderson and Faust, 1974, p. 1).

Development of a pretest based on the task analysis is the next logical step. The pretest should closely parallel the task analysis, covering the major objectives so that feedback on particular objectives is possible. This feedback, in turn, may need to be sought throughout the course of instruction.

Simply preparing detailed and specific objectives will not guarantee effective teaching. The teacher must now select and prepare appropriate instructional materials and methods, based on the task analysis, that will bring students from their entering behavior level to attainment of the objectives (Duchastel and Merrill, 1973). These authors also believe that the keys to effective learning are "clear specification of what is expected, active responding by the learner, and immediate and frequent feedback on student progress" (Duchastel and Merrill, 1973, p. 60).

Sequencing of Instruction. Popham and Baker spoke directly to objectives as the essence of instructional sequencing by asserting that precise instructional objectives are prerequisites to precise sequenc-Not everyone will analyze a given objective into the exact same component parts. They also state that "all prerequisites are not your responsibility" (Popham and Baker, 1971, p. 47). The learner comes to the situation with some entry behaviors. The next major task of the instructional planner is devising the sequence in which instruction takes place and is related to efficiency. What order best helps learners achieve the objective with the least possible expenditure of instructional resources? Certain elements do have to come first. Popham stated that sequencing of behaviors should be left to empirical verification. Heavy responsibility is placed on the teacher to plan wisely. "Poor post-instructional performance by pupils generally reflects inadequacies in the instructional sequence" (Popham and Baker, 1971, p. 17).

#### Evaluation

Evaluation is described as a process of appraisal which involves securing evidence on the attainment of objectives, acceptance of specific values, and the use of a variety of measuring instruments as a basis for making value judgments (Tyler, 1951). The basic purpose of evaluation is to make decisions for purposes of revision. Two main functions of evaluation, according to Stake, are: (1) to ascertain the nature and the size of the effects of the treatment, and (2) to decide whether or not the observed effects attain acceptable standards of excellence. In other words, evaluation involves securing evidence on the achievement of objectives.

Two types of evaluation are presented here; formative and summative. Formative evaluation involves collection of appropriate evidence during the planning and implementation phases of a course or curriculum so that revisions can be made based on the data collected. Summative evaluation is concerned with assessment of a course or curriculum at its completion.

Formative evaluations serve several functions: (1) learner diagnosis, (2) feedback, (3) pacing, (4) reinforcing effect, (5) initial assessment, and (6) forecasting (Huckabay, 1980). The major function of summative evaluation is to make judgments about the final product.

Wittrock referred to evaluation of instruction as consisting of three elements: the learner, the environment, and the learning. He maintained the relationship among these three components must be quantitatively estimated—a complex type of evaluation which is now feas—ible because of the availability of computer assistance with the multivariate statistical procedures (Wittrock, 1970).

#### Feedback

Feedback is operationally defined as "the information the learners receive about their own performances that enables them to compare actual performance with that of a standard performance" (Huckabay, 1980).

Feedback prompts the student by giving information before or at the same time a response is being made with the intention of motivating learning. Gagne pointed out, "some means or other must be provided during instruction for him to perceive the results of his activity, to receive from the learning environment some feedback that enables him to realize that his performance is 'correct'" (Gagne, 1970, p. 315).

Various types of feedback, specific to the way in which knowledge of results is obtained, were described by DeCecco and Crawford:

<u>intrinsic</u> feedback obtained through own actions: normally present and not often subject to experimenter manipulation.

<u>extrinsic feedback</u> supplied by another concerning the effectiveness of the subjects actions (as between teacher and student).

<u>external feedback</u> received throug the external sensory organs (vision, hearing, touch, smell, and taste).

<u>internal feedback</u> obtained from internal receptor organs (Kines-thetic).

<u>augmented feedback</u> obtained when an experimenter adds additional feedback (such as a nod of the head in approval).

<u>learning feedback</u> received after the completion of the response, such that the information cannot be used to control the response being measured but can only be used by the subject for subsequent responses.

<u>action feedback</u> arrives and can be utilized by the subject during a response (DeCecco and Crawford, 1974).

A classical view of feedback is that all forms of feedback can be regarded as either rewarding or punishing. According to reinforcement

theory, learning is viewed as "an adaptation to the exigencies of the real world" (Huckabay, 1980, p. 354). Feedback should be immediate and frequent to motivate students and facilitate learning.

#### Use of Models

A model is a conceptual representation of reality or a "symbolic depiction in logical terms of an idealized relatively simple situation showing the structure of the original system" (Hazzard and Kergin, 1971, p. 392). The Claus-Bailey Model for Problem Solution is a cybernetic system described as having input, which is acted upon or transformed to yield output by means of a closed feedback loop. The model is presented in linear fashion of step-by-setp procedures which leads a decision-maker to think systematically. The model is structured so that the problem solving situation can be entered at any point in the process. The model contains ten steps or processes.

- Step 1 Define overall needs, purposes and goals.
- Step 2 Define the problem.
- Step 3 Weigh the constraints versus the capabilities and resources.
- Step 4 Specify an approach to solving the problem.
- Step 5 State specific decision objectives and performance criteria.
- Step 6 Generate and list alternative solutions.
- Step 7 Analyze the options.
- Step 8 Choose the best alternative by applying decision rules.
- Step 9 Control and implementation of decision action.
- Step 10- Evaluate the effectiveness of a decision action. (Bailey and Claus, 1975, pp. 18-29).

Bailey and Claus discuss some obstacles to decision-making such as: (1) unclear goals and purposes, (2) failure to consider relevant alternatives, (3) jumping to conclusions, and (4) failure to examine possible consequences (Bailey and Claus, 1975, pp. 12--14). These obstacles underscore the need for a systematic approach to decision-making. The use of a decision-making process can effectively eliminate or diminish the obstacles and lead to more efficient decision-making. Implementation of CAI in schools of nursing is a major decision and, as such, deserves attention to the decision-making process for arriving at sound decisions.

#### CHAPTER III

#### DEVELOPMENT OF DECISION-MAKING PROCESS

Chapter I deals with the problems in nursing education and the need for efficient and effective use of educational technology. The development of an instructional process to assist in the implementation of CAI is presented as a need. Chapter II contains pertinent research and opinion of experts regarding CAI, learning theories, instructional design, and the use of models. Although the use and construction of models were discussed in Chapter II, the guidelines for directing decision-making, offered in this chapter, involve more of a process than a model. This chapter, then, describes the development of a decision-making process for implementing CAI in a baccalaureate school of nursing.

# Administrative Support

Faculty members charged with the responsibility of implementing CAI need to be assured of solid administrative support. Implementation at the instructional level assumes that funds are adequate, space is available, and there is basic administrative philosophical support and commitment to the utilization of CAI. The first step, then, is a determination of administrative support. If administrative commitment is not solidly in place, effort aimed at the implementation of CAI will be futile.

## Faculty Expertise

A basic understanding of computers and their use in the instructional process is, of course, absolutely necessary for faculty who attempt to implement CAI. Not only do faculty members need a thorough knowledge of computers and computing, they must be aware of the possibilities for application in a specific area such as nursing education. Faculty members who initiate CAI in curriculums need experience in computer usage from a learner point of view as well as from a programming perspective. Even though faculty in other departments of the college or university may be knowledgeable of computers and computing, at least one nursing education faculty member must be at least minimally computer literate if the goal is to introduce CAI into the nursing department.

Five levels of interaction with computers may be described as toddler, child, adolescent, adult, and virtuoso. The toddler level involves initiating and terminating interaction with a computer along with the use of established programs. The child level implies that programs which require some decisions about function can be utilized. Progressing to the adolescent level, one is capable of modifying existing software, a function which requires some elementary programming skills. On the adult level of computer literacy, the user can write complex source programs in a high level language to solve problems. The virtuoso, or expert, level is a very high level performance which requires much time and effort to attain. The higher the level of computer literacy among faculty, the greater will be the possibility for success.

## Teaching Modes Appropriate for CAI

Since CAI can effectively facilitate a number of well-established teaching modes discussed in Chapter II, a faculty wishing to explore the possibilities of utilizing CAI must understand how these teaching modes can be applied to the computer.

<u>Tutorial</u> programs can be the method by which primary instruction is accomplished in specified subjects. Although CAI is intended to supplement rather than supplant the teacher, the classroom lecture can, in some cases, be replaced by tutorial CAI, freeing the faculty member to interact with students on a different level of learning.

<u>Drill and practice</u> programs are built around the assumption that the student has learned a concept which needs to be practiced. Large amounts of faculty time and energy are required for this drill and practice learning in nursing education. CAI programs designed to provide the needed drill and practice are most appropriate and beneficial.

<u>Simulation and gaming</u> are teaching modes which assume the student has learned and internalized concepts which may be used as he responds to a hypothetical problem situation. Nursing interventions can be tested by means of computer without the inherent risk of experimentation in the actual clinical setting.

The <u>problem-solving</u> mode is appropriate for performing tasks such as mathematical calculations, drug dosages, conversion of weights and measures, and many other routine functions which are frequently encountered in nursing practice.

The use of the <u>discovery</u> mode is appropriate on a high level of learning as students are asked to apply concepts which have been

learned and to analyze the interrelationships of those concepts. Discovery learning is possible through the use of CAI on an advanced level and may not be a realistic expectation for baccalaureate student nurses but may be more appropriate on the graduate level. Selected courses in selected schools of nursing may, however, be able to effectively utilize this mode of CAI learning. The cost of producing discovery mode programs is greatly increased due to the complexity of branching techniques in programming.

## Student Variability

Age, ability, and life experiences vary widely among students in baccalaureate schools of nursing. Some students may be recent high school graduates while others may be returning to the academic setting after having been involved in the work force for a number of years. Some may have none, or relatively little, experience in or exposure to nursing, while others have much prior knowledge and experience. While minimum standards for students entering baccalaureate schools of nursing are relatively high, there remains a wide diversity among learning styles, motivation levels, and capabilities. Students learn at different rates, on different levels, and in different ways; therefore, nursing faculty must be able to provide a variety of learning experiences for students.

All students may be able to acquire basic knowledge by means of tutorial CAI programs. For those students who have difficulty with comprehension of concepts, drill and practice programs may assist their learning. Students who are quick to learn and understand may be able to

apply their knowledge by utilizing gaming and simulation to enrich their learning experiences. All student nurses must be able to apply concepts learned in problem-solving situations; therefore, the problem-solving mode is appropriate for all styles of learning.

Few beginning students will be able to function at the synthesis level of learning. For those who are able to do so, CAI programs may be written but few are currently available.

## Survey of Curriculum

After gathering data about the availability of different modes of CAI and examining student characteristics, the next step is to survey the nursing curriculum for purposes of identification of areas where student needs can be matched with CAI modes. For example, the goal of the initial course in many baccalaureate schools of nursing is the acquisition of knowledge which may be effectively taught by the tutorial mode which is most appropriate for CAI. As nursing faculties survey the curriculum, they may choose to select one course and examine it carefully for purposes of identifying which topics may be taught by a selected mode of CAI.

# Selection of Topcs Suited to the Tutorial Mode

Since the tutorial mode is the least complex and least costly mode of CAI, and is efficient and effective for the acquisition of knowledge, it should be utilized whenever appropriate. For example, the acquisition of nursing terminology by tutorial CAI would free nursing faculty to deal with higher levels of learning not so easily suited to CAI.

## Selection of Topics Suited to the Drill and Practice Mode

The course under consideration is then carefully examined to identify topics which involve comprehension level objectives. Students may have learned through a tutorial program that "hyper" means high and "tension" means pressure. Through a drill and practice mode the words may be combined to mean "hypertension" which should be understood or comprehended by the student as a disease process with specific characteristics. All topics or units within the course will be examined for their appropriateness to the drill and practice mode of CAI.

## Selection of Topcs Suited to the Gaming and Simulation Mode

After identification of topics which can be taught by tutorial and drill and practice, the remainder of the course will be examined for use with the gaming and simulation mode which builds upon the previous modes and involves application of knowledge and concepts. A case study of a hypertensive patient may be appropriate for this mode. The student will be able to make nursing judgments and practice skills in a dynamic manner which has the added advantage of permitting costly or hazardous experiments.

## Selection of Topics Suited to the Problem-solving Mode

Any course content which remains after having been surveyed for use with tutorial, drill and practice, and gaming and simulation modes may be applied to the problem-solving mode. This requires more extensive and expensive programming techniques and will not be utilized as frequently with beginning students who have not reached the application level of learning.

## Selection of Topics Suited to the Discovery Mode

The discovery mode of CAI is more appropriate for use with synthesis level learning and will be appropriate for only the more advanced students and advanced courses of the nursing curriculum. Cost of production is high and time required for student interaction is also more than with other modes.

## Behavioral Objectives

After a CAI mode is selected and topics suited to that mode are identified, the nursing educator will want to determine whether behavioral objectives are written for the topics. If acceptable behavioral objectives are available, the next step is determining whether software which will meet the objectives is available. If acceptable behavioral objectives are not written for the identified topics, then writing those behavioral objectives is necessary before proceeding to the acquisition and/or development of software.

## Software

When all topics have acceptable behavioral objectives and software is not available, the faculty member charged with the responsibility of implementing CAI will need to investigate the possibility of production of software. A working knowledge of programming is essential even though a computer programmer may be hired to do the actual programming. If faculty can identify topics to be taught by a specific mode of CAI and can provide the programmer with acceptable behavioral objectives and specific content items, the professional programmer will be able to develop suitable software. The necessity of producing one's own soft-

ware will require a considerably longer period of time for implementation. Software production is costly and time consuming; therefore, existing programs must be utilized whenever possible.

## **Implementation**

The process described is repeated for each course within the curriculum until all topics and CAI modes are matched appropriately, behavioral objectives are available for all topics, and software is acquired or produced. Implementation is then effected and the evaluation process developed and refined.

#### Evaluation

The evaluation process, an essential element of systematic instructional planning, measures the degree to which learning is accomplished. Evaluation of program outcomes for effectiveness and efficiency may be accomplished in a variety of ways. The effectiveness of a program may be described in terms of the percentage of students who reach an acceptable level of achievement for each objective. The acceptable level will be determined by faculty involved with the instruction and may vary from course-to-course and unit-to-unit.

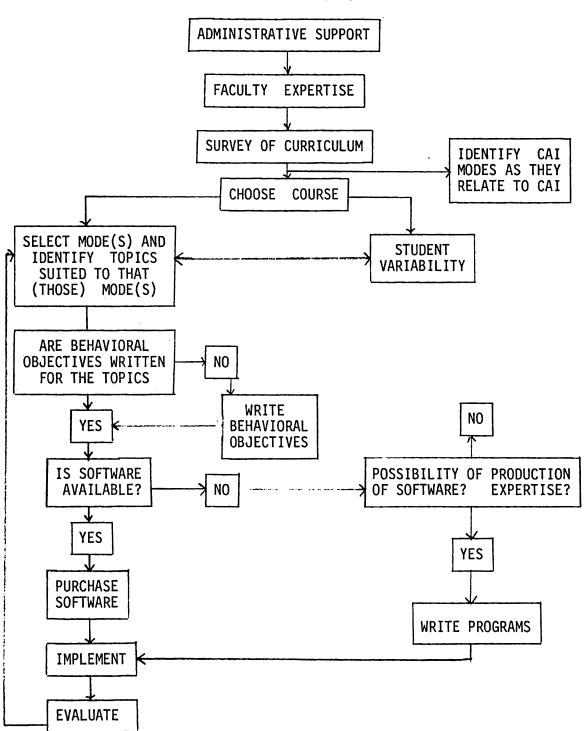
Efficiency refers to the time required for student learning to take place. Kemp describes efficiency in terms of a performance index which is arrived at by dividing the number of objectives a student achieves by the amount of time it takes him to accomplish them (Kemp, 1977). For example, a student satisfies seven objectives in 4.2 hours of study and work. By dividing the number of objectives met by the amount of time required to meet them, the performance index is 1.7. The higher the

index, the more efficient the student's performance is judged to be.

As with effectiveness, the acceptable efficiency level, or desired performance index, is arrived at through subjective decisions. The index may be raised through revision of activities and materials. In the case of CAI, the performance index may be raised through alteration of programs or by increasing student comfort and competence with this method of instruction.

The process described in this chapter and illustrated in page 45 will be applied to a baccalaureate program of nursing in a small private liberal arts college in Chapter IV.

# DECISION-MAKING PROCESS FOR IMPLEMENTING CAI IN A BACCALAUREATE SCHOOL OF NURSING



#### CHAPTER IV

#### APPLICATION OF DECISION-MAKING PROCESS

Chapter III presented a decision-making process for implementation of computer-assisted instruction into a nursing curriculum. This chapter describes the application of that process in the Department of Nursing Education of a small, private, liberal arts college.

## Administrative Support

The first consideration in the implementation of CAI in a curriculum is determining whether there is administrative support and commitment. If support is not assured from a college-wide administrative perspective, as well as from the department chairperson, faculty members will not be able to successfully utilize CAI as a method of instruction. In this instance, administrative support is assured by means of college-wide involvement in a Quality Undergraduate Project under the auspices of the Council for the Advancement of Small Colleges. The purposes of the project are to define pragmatically "computer-literacy", to explore the potentials and problems of using computers in instruction/learning, to investigate the practicability and cost of using micro-computers, and to begin in a small way to offer students hand-on experience with computer programs related to various academic disciplines and activities of life. The Department of Nursing Education was among those disciplines targeted for involvement in this project.

The first consideration, then, in this decision-making process is

that of determining administrative support. In this college, administrative support is positive and allows progression to subsequent considerations in the decision-making process.

# Faculty Expertise

The Department of Nursing Education has twelve faculty members, none of whom has had significant experience with instruction involving computers and/or computing. For purposes of the initial implementation of CAI into this nursing curriculum, one faculty member studied computer science at a local university, developing elementary programming skills and becoming minimally computer literate. Recognizing that the literacy level of the Department of Nursing Education is no more advanced than the "child" level, described in Chapter III, the decision was made to initiate the implementation of CAI by utilizing established programs if any could be located. If commercial programs were not available, faculty expertise would provide for the production of CAI programs on a tutorial and/or drill and practice level. Modes which require more sophisticated programming skills are not presently within the capabilities of this nursing education faculty at this college.

# Student Variability

At the time of the implementation of CAI into this baccalaureate nursing curriculum, the student population numbered 112. Students are admitted into the nursing program after one and one-half years of college preparation. Most are generic students between the ages of 19 and 26 years with a relatively small percentage (15 to 20%) being older, adult learners. Few have had significant experience with computers or

computing. Minimum grade point average for admission and/or retention in the department is 2.5 on a 4.0 scale. Most are female with one or two male students per class level.

The student population in this Department of Nursing Education is relatively homogenous with minimal deviation from the 19 to 26 year old, white, female student nurse. Few are even minimally computer literate but are beginning to function in a practice setting which requires computer literacy. CAI is an appropriate mode of instruction for the student population of this Nursing Education Department.

## Survey of Curriculum

After determining that administrative support, faculty expertise, and the student population allow for implementation of CAI at this college, the next variable examined was the curriculum of the Department of Nursing Education. The nursing curriculum is a carefully designed program of professional studies in nursing, liberal arts courses, and professional support courses which leads to the bachelor of science degree and which prepares a student to write the state licensure examination.

# History of the Department of Nursing Education

The Department of Nursing Education was established in 1970 in response to an increasing need for baccalaureate prepared nurses. A concern for the whole person is the central focus of the nursing education curriculum. The department is fully accredited by the Missouri State Board of Nursing and the National League for Nursing.

## <u>Philosophy</u>

The faculty-developed philosophy, program objectives, and terminal behaviors serve as the foundation for the Department of Nursing Education and are firmly based on the belief that people are complex and are biological, psychological, social and spiritual beings. Learning is seen as:

a dynamic and common endeavor of the students and faculty. It is an ongoing process utilizing problem solving orientation. It incorporates knowledge from the humanities and the behavioral, biological and physical sciences with current nursing theory and practice. This learning is directed toward a fostering of increased self-direction, independence and self-evaluation in the learner. Learning occurs in a milieu which recognizes the learner's dignity and worth and fosters his/her right and responsibility to challenge and question the educational process. (Student Handbook, 1980, pp. 2-3)

This fostering of self-direction in the learner is entirely compatible with computer-assisted instruction.

## Program Objectives

The Department of Nursing Education Curriculum assists the student to:

- I. Develop a philosophy of nursing that incorporates the changing needs of society based on an awareness of the interrelatedness of people and their environment.
- II. Utilize the nursing process as a basis for providing care to individuals and/or groups.
- III. Collaborate with health team members and other disciplines to enhance the quality of health care.
  - IV. Demonstrate accountability to the client(s) for the provision of optimal health care and assume responsibility for own actions.
  - V. Accept responsibility for personal and professional growth.
- VI. Demonstrate self-direction based upon critical thinking and the systhesis of information. (Student Handbook, 1980, p. 3)

## Terminal Behaviors

The aim of this curriculum is to prepare a beginning practitioner who:

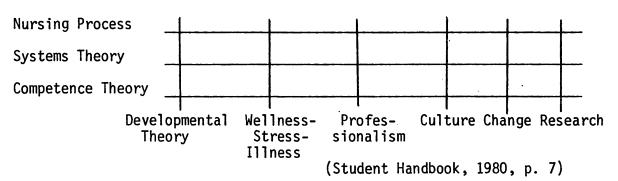
- A. Recognizes that people are complex and influenced by their total environment.
- B. Utilizes knowledge from the humanities; the behavioral, biological and physical sciences; and from current nursing theory and practice to plan, implement, and evaluate nursing intervention with all age groups in a multiplicity of settings.
- C. Demonstrates the ability to function effectively and creatively either as an independent practitioner or as a member of a health team concerned with the care of individuals, groups, and the community.
- D. Demonstrates the ability to utilize basic psycho-socialphysical assessment skills.
- E. Recognizes the need and accepts the responsibility for individualized client and family education utilizing sound principles of learning theory.
- F. Appreciates the need for ongoing nursing research in order to improve the quality of nursing practice.
- G. Modifies nursing practice in keeping with current developments in nursing and changes in society.
- H. Maintains the standards of the profession through constant assessment of existing practices and through active participation in the legislative processes governing the health care system.
- I. Demonstrates self-direction in the pursuit of professional and personal growth through continuing education and self-evaluation.
- J. Recognizes and accepts responsibility for own professional actions. (Student Handbook, 1980, p. 4)

The Program Objectives and Terminal Behaviors are compatible with computer-assisted instruction.

## Conceptual Framework

The conceptual framework is based on the stated philosophy, program objectives, and terminal behaviors. Concepts are Nursing Process, Competence, Systems Theory, Development, Wellness-Stress-Illness, Professionalism, Culture, Change, and Research. These curriculum concepts are integrated into a framework for the development of nursing courses.

Nursing Process, Systems Theory and Competence Theory are continuous throughout all nursing courses. They are the horizontal strands in the curriculum framework. Other concepts and accompanying theories, although important, are not necessarily continuous through the curriculum. These are the vertical strands. The framework is conceptualized as follows:



This integrated concept stimulates students' incentives to learn, to grow, to achieve. It is a dynamic approach to education and is appropriate for computer-assisted instruction.

## **Nursing Courses**

Eight nursing courses, totalling 48 semester hours, are required for the nursing major. Those required courses are:

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Nursing 250 - Introduction to Nursing
Nursing 330 - Nursing Process I
Nursing 340 - Introduction to Human Pathology
Nursing 350 - Nursing Process II
Nursing 420 - Nursing Seminar I
Nursing 425 - Nursing Seminar II
Nursing 430 - Nursing Process III
Nursing 450 - Nursing Process IV (Student Handbook, 1980, p. 7)
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Course descriptions can be found in Appendix A.

#### Choice of Course

The initial nursing course, Nursing 250, required of second semester sophomore students, has been chosen for study. The basic objective of this course is the acquisition of knowledge, which makes it an appropriate vehicle for CAI. The course is a survey of the concepts and theories of the entire nursing curriculum. The complete course syllabus can be found in Appendix B, page 69. One other reason for choosing this course is that of introducing students to the computer early in the curriculum. This course has a clinical component and students are expected to interface with computers, in a limited fashion, as a part of this initial clinical experience. There is a need for Nursing 250 students to be computer literate.

## Selection of Sample Topic Suited to the Tutorial Mode

Taking into account the limited computer literacy level of faculty in the Department of Nursing Education, along with the knowledge that there are no programs of any mode available for purchase at this time, the decision was made to select for illustration content that had accompanying knowledge level measurable behaviors. Examining each topic within this course, the session concerned with the legal aspects of professionalism was found to be entirely involved with primary instruction. Measurable behaviors are all written on the knowledge level and, as a result, can be readily programmed into the tutorial mode of CAI. Drill and practice would not be appropriate in this instance because drill and practice programs are built around the assumption that the student has learned concepts which need to be practiced. Gaming and

simulation, problem-solving, and discovery modes of CAI are also not appropriate for knowledge level objectives.

Present faculty will be able to produce tutorial programs in a shorter period of time than would be required of drill and practice. Since more difficult programming is not possible at this time in this Department of Nursing Education, this topic which allows for tutorial programs is most appropriate. Further, this topic is the only one in the entire Nursing 250 course which contains exclusively knowledge level measurable behaviors, and, as such, is the most logical material for application to the tutorial mode of computer-assisted instruction. The content outline and measurable behaviors approved by the faculty of this Department of Nursing Education are found in Table 1.

The measurable behaviors on Table 1 are all concerned with the acquisition of knowledge and, as such, are all appropriate for application to the tutorial mode of CAI.

## Software

Within the Nursing 250 course, the topic most suited to the tutorial mode of CAI was the legal aspects of professionalism. Software for this, or other topics included in this particular nursing course, is not available at this time. Letters were written to the six schools of nursing, referred to in the review of literature, who reported use of computer-assisted instruction. None have CAI nursing programs available for use outside their own schools. After the acquisition of an Apple II micro-computer, projected for shortly after the completion of this dissertation, the one nursing education faculty member with

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MEACURABLE BEHAVIORS	CONTENT
1. Verbalizes the two major sources of law. 2. Verbalizes types of laws: A. Criminal B. Civil 3. Defines Tort laws. 4. Defines malfeachice, misfeasance and nonfeasance. 5. Defines megligence and malpractice 6. Verbalizes components necessary for malpractice action in a nursing situation. 7. Verbalizes circumstances that affect negligent conduct for the nurse. 8. Verbalizes understanding of the concept of Respondent Superior. 9. Verbalizes the meaning of: A. Slander B. Libel C. False Imprisonment D. Invasion of privacy E. Assault and battery 10. Verbalizes understanding of Good Samaritan Law. 11. Verbalizes understanding of typical nurse practice act. 12. Verbalizes components of typical nurse practice act. 13. Verbalizes fedinition of mandatory licensure. 14. Verbalizes definition of mandatory licensure. 15. Verbalizes the implication of Good Samaritan Laws. 17. Verbalizes the implication of Good Samaritan Laws. 17. Verbalizes rationale for Nurse Practice Act. 18. Verbalizes mathods of obtaining a license to practice nursing. 19. Verbalizes mathods of obtaining a license to practice nursing. 19. Verbalizes reasons for the suspension of or revoking of license. 20. Verbalizes examination method used by State Board. 22. Verbalizes various aspects of certification.	LEGAL ASPECTS  I. Sources of Law II. Types of Law A. Criminal III. Tort Law IV. Negligence and Malpractice V. Respondent Superior VI. Violation of Client's Legal Rights A. Slander and libel B. False imprisonment C. Invasion of privacy D. Assault and battery VIII. Nurse Practice Acts IX. Nurse Practice Acts A. Responsibilities B. Education C. Licensure X. Nurse Practice Acts A. Missouri Act B. State Board of Nursing C. Licensure 1. Examination 2. Endorsement 3. Revoking of license D. Education XI. Certification BIBLIGGRAPHY: On 1. Ellis, Janice & Celia Hartley. Nursing in Today's World-Change-Issues & Trends. Philadelphia: J.B. Lippincott Co., 1980, pp. 74-90; 163-194. 2. Sorensen & Luckmann. Basic Nursing—A Psychophysiologic Approach. Philadelphia: W.B. Saunders Co., 1979, pp. 337-344.

beginning programming skills will utilize the content and measurable behaviors presented above and begin writing tutorial programs.

## <u>Implementation</u>

Administrative support and commitment to computer-assisted instruction at this college is strong. The Chairperson of the Department is committed to utilizing CAI at the earliest possible time. One faculty member is prepared to write tutorial or drill and practice programs as soon as computer facilities are in place. The nursing curriculum has been surveyed and Nursing 250 was chosen for the initial effort at implementing CAI. Content related to the legal aspects of professionalism was chosen as the topic most suited to the tutorial mode. Knowledge level measurable behaviors are written and are appropriate for the tutorial mode of CAI. Software is not presently available; therefore, programs will be implemented only after the computer is in place and the tutorial programs are written.

# **Evaluation**

Evaluation of any programs implemented will follow the actual implementation. Since implementation, as discussed above, has not been effected due to the present unavailability of computer facilities on campus, evaluation will be deferred until the appropriate time and will follow the framework suggested in Chapter III.

# Comments on Application of the Process

This chapter has described the application of the decision-making process presented in Chapter III. Beginning with a determination of

administrative support, the conclusion was drawn that there exists solid administrative support for the immediate initiation of CAI into the Department of Nursing Education. The Department Chairperson strongly supports and encourages faculty in the planning and production of computer programs for the student population. Because of this support and encouragement, one faculty member has learned beginning programming skills and is prepared to write programs using either the tutorial or drill and practice modes. The curriculum was examined and the initial nursing course chosen for study. Content chosen dealt with the legal aspects of professionalism and is accompanied by measurable behaviors which are written on the knowledge level. Software, for this or other topics in nursing, is not presently available. Computer facilities are not yet in place on this campus; therefore the actual implementation of programs must be deferred until such time that facilities are acquired.

Applying the decision-making process to this Department of Nursing Education, has led to the conclusion that all the critical curricular variables involved in the initial implementation of CAI are favorable up to the point of availability of software. Following the process has provided a fresh urgency for the purchase of computer facilities and implementation of CAI on the campus of the College referred to in this study. The decision-making process as presented and applied is a helpful tool for making decisions about critical curricular variables involved with CAI.

#### CHAPTER V

#### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

Chapter I dealt with the problems in nursing education and the need for efficient and effective use of educational technology. Computer-assisted instruction is a promising form of present educational technology. Nursing educators are not well prepared to utilize computer technology; therefore, an instructional model to assist in the optimal application of computer-assisted instruction was presented as a need.

Chapter II set forth pertinent research and opinion of experts in the area of CAI, learning theories, and instructional design. Review of the literature failed to substantiate widespread utilization of computer-assisted instruction in schools of nursing. Information presented in Chapter II served as the basis for the development of the decision-making model or process described in Chapter III.

Chapter III described the development of a decision-making process for implementing CAI in a baccalaureate school of nursing. Administrative support, faculty expertise, teaching modes appropriate for use with CAI, student variability, survey of curriculum, selection of course and topic, implementation, and evaluation are all identified as critical variables in the decision-making process described in this chapter.

Chapter IV described the application of the decision-making process set forth in Chapter III. The process was applied to the Department of Nursing Education of a small, private, liberal arts college.

#### Conclusions

Educational technology, specifically computer-assisted instruction, is not being optimally utilized by nursing education. There is a need for a decision-making model or process to guide nursing educators in making decisions about the critical variables involved in the implementation of CAI. Those critical variables are administrative support, faculty expertise, student variability, instructional modes, and availability of expertise and facilities.

Since CAI is an appropriate mode of instruction and since there are currently no nursing-specific programs available for purchase, there is a need for nursing faculty to become increasingly computer literate so that programs may be written and implemented.

Application of this process has brought about the unexpected benefit of encouraging nursing faculty to critically evaluate measurable behaviors and to make alterations and improvements before CAI programs are written. Another unexpected outcome has been the demonstration that the Department of Nursing Education is prepared to implement CAI on a limited scale pending acquisition of computer facilities. From an instructional point of view, CAI is an immediate and real possibility at this college.

# Recommendations for Further Study

- Further study needs to be given the possible interrelationship of student learning styles and different modes of CAI.
- 2. Determination of student attitudes toward and experience with CAI would be helpful information.

- 3. Due to rapid changes in educational technology, more attention needs to be given the different kinds of computer facilities available at the time implementation of CAI is being considered.
- 4. The evaluation process needs to be developed more completely, particularly by those educators who have already had experience with CAI as a part of their teaching experience.
- 5. Finally, a study to determine ways and means of sharing information and computer-assisted programs among schools of nursing is needed.



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#### APPENDIX A

#### COURSE DESCRIPTIONS

NURSING 250: Introduction to Nursing.

Introduction to the major concepts of the curriculum framework. Emphasis is placed on Nursing Process, Systems Theory and Competence Development. Theories of Wellness, Change, Development, Professionalism, Research and Culture are introduced both in the classroom and laboratory situations.

Laboratory experiences emphasize the development of specific nursing competencies: basic psychomotor, communication and decision-making skills. Three hours lecture per week. Two hours laboratory per week to discuss theory application and to practice interpersonal communication and basic nursing skills.

NURSING 330: Nursing Process I.

This course is the first in the nursing curriculum with a major clinical component. The focus is on applying nursing process in the wellness and stress state of individuals and families. Heavy emphasis is placed on psychosocial and physical assessment of the well person within the family system. The clinical component includes six-week experience in two major clinical areas. These areas are obstetrical and pediatric nursing with community experiences being an integrated component. Four and one-half lecture hours per week.

NURSING 340: Introduction to Human Pathology.

This course is designed to provide a basic understanding of pathophysiology and psychopathology. Emphasis is placed on an individual's total response to pathological processes. Four lecture hours per week.

NURSING 350: Nursing Process II.

This course is designed to build upon the basic skills and theories taught in Nursing 330. The focus is on applying nursing process in illness and dysfunctional behavior of individuals and families. Emphasis is placed on assessment of illness and/or dysfunctional behavior utilizing a holistic framework. The clinical component includes a six-week experience in two major clinical areas which the student did not have in Nursing 330. With the completion of Nursing 350, each student will have received six weeks experience in each of the four major clinical areas with correlated community experiences. Four and one-half lecture hours per week. Two hours of skills laboratory per week. Eight hours of clinical practicum and one hour of clinical conference per week.

NURSING 420: Nursing Seminar I.

Introduction to basic research methodology. Emphasis will be placed upon the development of a nursing research project.

NURSING 425: Nursing Seminar II.

Continuation of 420. Further development and application of research skills and successful completion of individual research project will be emphasized.

NURSING 430: Nursing Process III.

Eight hour Senior level course which focuses upon the implementation of the nursing process utilizing principles of crisis intervention and acute biological and/or psychosocial crises. The clinical component includes a six week experience in an intensive care area and in an acute mental health setting. Four lecture hours per week. Two hours of skills laboratory per week. Twelve to sixteen hours of clinical practicum and one hour of clinical conference per week.

NURSING 450: Nursing Process IV.

Ten hour Senior level course which focuses upon community and large group systems as well as environmental stressors and issues in nursing practice including leadership skills and management of groups. The clinical component includes experience in group management in episodic and distributive settings. Four lecture hours per week. Two hours of skills laboratory per week. Sixteen to twenty-four hours of clinical practicum and one hour of clinical conference per week.



#### COURSE OBJECTIVES

- Comprehends the conceptual framework of the Nursing Department of the William Jewell College curriculum
  - A. Verbalizes the curriculum development process
  - B. Defines conceptual framework
  - C. Verbalizes the relationship of the conceptual framework of the Nursing Education Department to the mission and purpose of WJC
  - D. Verbalizes the relationship between the horizontal and vertical strands
  - E. Defines level and terminal behaviors
- 2. Comprehends the concepts and principles of systems theory
  - A. Defines systems theory
  - B. Lists and illustrates the concepts of systems theory
  - C. Explains systems theory as it relates to understanding the individual
- Comprehends the major concept of competence as it relates to the curriculum design
  - A. Describes R. W. White's concept of competence as it relates to his theory of motivation
  - B. Describes the concept of competence as it relates to understanding the individual
- Applies knowledge of interpersonal competencies which facilitate relationships with individuals
  - A. Identifies major theories of communication
  - B. Demonstrates competence in application of a communication model
  - C. Describes the components of the decision-making process
  - D. Demonstrates competence in application of a decision-making model
- Applies knowledge of psychomotor competencies in the laboratory setting
  - A. Dmonstrates ability to support activities of daily living
  - B. Demonstrates ability to establish a safe environment
  - C. Demonstrates ability to provide physiologically safe and comfortable positions for individuals
  - D. Uses proper body mechanics
  - E. Demonstrates ability to monitor vital signs
  - F. Demonstrates the basic technique of physical assessment
- Comprehends the role of the consumer as an active participant in the health care system
  - A. Defines the concept of consumer competence
  - B. Identifies his/her role as a consumer of health services
  - C. Verbalizes the major concepts of the "Patient's Bill of Rights"
- 7. Comprehends the nursing process as central to all nursing actions
  - A. Verbalizes the flexibility of the nursing process
  - B. Verbalizes the historical development of the nursing process
  - C. Verbalizes the phases of the nursing process

#### N250--Spring '81--Course Objectives

- D. Verbalizes the basic components of the assessment phase of the nursing process
- E. Lists the major sources from which data concerning the client can be obtained
- F. Defines nursing diagnosis and contrasts this defintion with medical diagnosis
- G. Verbalizes the basic components of the planning phase of the nursing process
- H. Defines short, intermediate and long-term goals
- I. Verbalizes the need for establishing priorities in goal setting
- J. Verbalizes the need for validation of goal setting
- K. Verbalizes the basic components of the implementation phase of the nursing process
- L. Verbalizes the need for consultation and collaboration with other health team members in the implementation phase
- M. Verbalizes the basic components of the evaluation phase of the nursing process
- N. Defines evaluation of nursing process in terms of client behavior changes
- Verbalizes the nursing audit as a form of evaluation of client care.
- 8. Comprehends major theories of change (Lippit & Lewin)
  - A. Verbalizes concepts of change
  - B. Identifies concepts of traditional and planned change
  - C. Identifies the steps in the change process
- Applies theories of culture to the individual by utilizing basic assessment competencies
  - A. Identifies cultural factors contributing to the definition of health and health behavior
  - B. Identifies with the individual, behaviors influenced by cultural values
  - C. Identifies structural variables relevant to individual situations (Byrne)
  - D. Identifies cultural factors influencing the perception of stress
  - E. Describes personal cultural orientation
- Applies basic developmental concepts contributing to wellness in the individual (Sutterley)
  - A. Defines the systems approach as it relates to human development
  - B. Applies principles of growth to developmental assessment
  - C. Applies the following basic concepts of the organizing process in developmental assessment.
    - 1) Biophysical theory of organization
    - 2) Psychosocial theory of organization (Erikson)
    - Psychosexual theory of organization (Freud)
  - D. Assesses characteristics of the learning process (Piaget)
  - E. Assesses factors affecting sexuality in the individual
  - F. Assesses multi-sensory components of the communication process
  - G. Explains the relationship of creativity to human development
  - H. Explains the stablizing process

#### N250--Spring '81--Course Objectives

- Comprehends the concept of professionalism as it relates to his/her role as a student of nursing
  - A. Identifies the characteristics of a profession as described by various authors
  - B. Lists various levels of nursing and their implications for practice
  - C. Verbalizes theories of nursing as outlined by major nursing theorists
  - D. Identifies the characteristics of nursing model and medical model of health care
  - E. Verbalizes trends in nursing and nursing education
  - F. Verbalizes functions of professional and legal organizations which influence and regulate nursing practice
  - G. Verbalizes his/her definition of nursing
  - H. Verbalizes the major components of nurse practice acts
  - Identifies legal and ethical responsibilities of a student of nursing
  - J. Fulfills committments by reading assigned articles, attending and participating in class and laboratory activities, and completing written assignments
- 12. Comprehends the existence and relevance of research in nursing
  - A. Verbalizes that research is a basic characteristic of a profession
  - B. Lists two major literature resources in which nursing research may be found
- Applies the concepts of wellness and wellness behavior as they relate to the biological, interpersonal and intrapersonal components of the individual
  - A. Describes high level wellness theory as a philosophical approach to health care (Dunn)
  - B. Identifies implications of high level wellness for the delivery of health care
  - C. Verbalizes his/her own wellness behaviors and factors affecting them
  - D. Assesses individual wellness behaviors
  - E. Assesses environmental factors that affect the individual's wellness
  - F. Utilizes the Systems-Developmental-Stress (SDS) Model (Chrisman/ Riehl) in assessing wellness behaviors in the individual
  - G. Establishes nursing diagnoses
- 14. Applies the concept of stress in implementing the nursing process as it relates to the biological, interpersonal and intrapersonal functioning of the individual
  - A. Verbalizes theories of stress and anxiety (Selye & Peplau)
  - B. Assesses and validates with the client stressors within the internal/ external environments
  - C. Identifies adaptive behavior which the individual develops in response to stressors
  - D. Establishes nursing diagnoses

DATE: WEEK I - Monday, January 26, 1981

CLASS: COURSE INTRODUCTION

TIME: 7:50--9:35 AM - Room 104 Jewell

DATE: Tuesday, January 27, Wednesday, January 28, Thursday, January 29

CLASS: DEFINITION OF NURSING, CURRICULUM FRAMEWORK

TIME: 2:25--4:25 PM - Room 104 Jewell

OBJECTIVES: 1 - A, B, C, D, E: 11 - A, G, J

	FVΔ	I IIA	TION		
MEASURABLE BEHAVIORS		Ĭ		CONTENT	METHOO
1. Verbalizes the process of curriculum development as presented in class. 2. Describes strands in the conceptual framework. 3. Differentiates between the horizontal and vertical strands. 4. Identifies the main components of V. Henderson's definition of nursing. 5. Verbalizes his/her own definition of nursing. 6. List the characteristics of a profession.  BIBLIOGRAPHY: 1. Ellis, Hartley. Nursing in Today's World. Philadelphia:		xxx xxx		I. Definition of Nursing A. Virginia Henderson B. Characteristics of a profession C. Personal definition II. Curriculum Development Overview A. Philosophy B. Objectives C. Terminal behaviors D. Concepts E. Concepts F. Level behaviors G. Learning experiences	Lecture Discussion Handouts

DATE: WEEK I - Thursday, January 29, 1981 CLASS: SYSTEMS THEORY TIME: 7:50--9:35 AM - Room 104 Jewell

OBJECTIVES: 2 - A, B, C: 11 - J

			ATION	I		1
MEASURABLE BEHAVIORS	<del>- -</del> -	I	1^-	<del> </del>	CONTENT	METHOD
. Define systems theory		×		1.	Review Course Objectives related to Systems Theory	Lecture
. Define main components of systems theory		×		11.	Systems Theory Definitions	Discussion
<ul> <li>Relate these components of systems theory to man and the health care system.</li> </ul>		×	}	111.	Criteria for Open Systems	Handout of Definitions
IBL10GRAPHY:	İ		ļ	IV.	Components of Systems	Jee in terons
. Hazzard, Mary Elizabeth. "An Overview of Systems Theory," NCNA, (September 1971): 385-393. (Bib packet)				٧.	Application of systems theory to the health care system.	
. Sorenson, Luckmann. Basic Nursing. pp. 2-11.	1					
. Yura and Walsh. <u>The Nursing Process</u> . 3rd Ed., New York: Appleton-Century-Crofts, 1978, 43-49. (Reserve)						
					-	
	ł	1	1	1		I

DATE: WEEK I - Friday, January 30, 1981 - 7:50--9:35 AM

CLASS: COMPETENCE THEORY

OBJECTIVES: 3 - A, B; 11 - J

	EVALUATION			
M ASURABLE BEHAVIORS	C	T	A	CONTENT METHOD
. Verbalizes White's concept of behavior, interest, change and effect as described in his framework for competence motivation.  Verbalizes De Charm's concept of personal causation.  Compares White's framework of competence motivation to De Charm's concept of personal causation.  Draws and explains Roosa's model representing competence as a motivational, dynamic construct.  Monitors own development and use of specific behavioral skills.  Verbalizes the impact/effect of specific behaviors on self and others in clinical situations.  IBLIOGRAPHY:  Averill, Lloyd J. "Competence as a Liberal Art," (Paper presented at WilliM Jewell College, October 1969).  DeCharm, Richard. "Personal Causation Training in Schools," Journal of Applied Social Psychology. 2:2 (1972):95-113, Curry Library #197.  Hatson, Johnson. "A Product of Dyadic Relations: Interpersonal Competence," Social Psychology - Issues and Insights. Philadelphia: J. B. Lippincott, 1972, 76-76.  White, Robert W. "Motivation Reconsidered: The Concepts of Competence," Environmental Psychology. Probansky, et.al. (Ed) New York: Holt, Rhinehart & Winston, Inc., 1970, 125-134. Curry Library #196.	x x x .	×××		1. R. W. White's Concept of Competence Motivation A. Motivation for development of competent behavior (examples) B. Roosa's model of competence theory 1. Behavior 2. Effect 3. Interest 4. Change 5. Environment 11. DeCharm's Concept of Personal Causation A. Pawns, movers B. Man as origin of his behavior 11I. Comparison of DeCharm's and White's Concepts 1V. Utilization of Behavioral Checklist A. Rationalepersonal monitoring of skill B. Method

WEEK II - Monday, Thursday, February 2 - 7:50--9:35 AM Friday, WEEK III- Monday, February 6 - 7:50--9:35 AM February 9 - 7:50--9:35 AM

CLASS: NURSING PROCESS

OBJECTIVES: 7 - A - 0; 11 - J

	MEASURABLE BEHAVIORS	LU/	TION	ł	CONTENT	
5.6.7. 8.9.0. 1.2.3. 4.5.6.7. 8.9.0. 1. 2. 3.	Describes the five kinds of problem-solving methods as presented in class.  Defines process. Describes the characteristics of a process as discussed in class Verbalizes contributions made by Hall, Orlando & King to the development of the nursing process. Defines nursing process to systems theory. Verbalizes rationale as presented by Dr. Mauksch for using the nursing process. Defines each phase of the nursing process. Describes the basic steps in the assessment phase. Describes the major sources from which data concerning the client can be obtained. Defines and gives examples of objective and subjective symptoms. Describes the four main phases of the interview process. Describes the major methods utilized in obtaining data about the client. Describes the purpose and components of a nursing history. Differentiates between medical and nursing diagnoses. Describes the basic components of the planning phase.			1V.	A. Inherent B. Trial and Error C. Insight D. Vicarious E. Scientific	METHOD Bibliography Class Pre- sentation Discussion

NURSING 250-SPRING '81

WEEK III - Continued ... 2/9/81 CLASS: NURSING PROCESS - Page 2

			TION	
MI ASURABLE BEHAVIORS	c	Н	ΙΔ	CONTENT METHOD
25. Describes PSRO. 26. Defines nursing audit. 27. Verbalizes the relationship of PSRO and nursing audit. 28. Verbalizes the contribution of Marie Phaneuf to the evaluation of patient care. 29. Identifies the seven functions of nursing that is the foundation for Phaneuf's Nursing Audit System. 30. Verbalizes the basic components of POS.				VI. Implementation A. Methods B. Recording VII. Evaluation A. Definition B. Outcomes C. PSRO D. Nursing Audit
BIBLIOGRAPHY:				
1. Yura, Helen and Mary Walsh. The Nursing Process. 3rd Ed., New York: Appleton-Century-Crofts, 1978, pp 1-41. (Reserve) 2. Sorenson, Luckmann. Basic Nursing. pp. 251-333; 193-204. 3. Mauksch, Ingeborge and David Miriam. "Prescription for Survival," AJM. 72:12 (December '72):2189-2193. (Bib packet) 4. Byrne, Thompson. Key Concepts for the Study and Practice of Nursing. pp. 76-88. (Bib packet)  SUPPLEMENTAL BIBLIOGRAPHY: 1. Yura, Helen and Mary Walsh. The Nursing Process. 3rd Ed. New York: Appleton-Century-Crofts, 1978. pp. 91-211. (Reserve)				
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DATE: WEEK II - Tuesday,
- Wednesday,
- Thursday,
CLASS: DISCUSSION OF SYSTEMS

- DISCUSSION OF SYSTEMS

February 3 - 2:25--4:25 PM
February 5 - 2:25--4:25 PM
AND COMPETENCE THEORY

OBJECTIVES:

WE ACCUPATION DELIANATIONS	EVAL		CONTENT	
If SURABLE BEHAVIORS  Select a situation that can be explained using systems theory. Try to choose a situation/system different from examples given in class.  Diagram this situation using systems theory as demonstrated in class and label the components (focual system, sub-system, boundary, etc.).  Apply systems criterion as presented in class. Is this system an assemblage of parts? How are these parts united? How are they interdependent? Do they function as a unified whole?  Identify classifications of selected system. Is it social, cultural, biological, organized around a function like educational, formal, informal, open, closed? Your system may fall into several classifications.  Identify boundary and environment.  Identify matter, energy and information of selected system.  Describe information processing utilizing input, output and feedback mechanism(s) of selected system.  Begin to identify entropy and negentropy within selected system.  Verbalizes the rationale for the integration of competence into the conceptual framework of William Jewell College Nursing curriculum.  Discuss the relationship of competence and systems theory.  Utilizing White's Competence Motivation Theory discuss the maintenance of competent systems functioning.		Δ	I. Systems Theory Application II. Competence Theory Application III. Relationship Between Systems and Competence Theories	NETHOD

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#### NURSING 250-SPRING '81

DATE: MEEK III - Tuesday, February 10, 1981 - 2:25--4:25 PM
- Mednesday, February 11, 1981- 2:25--4:25 PM
- Thursday, February 12, 1981 - 2:25--4:25 PM
CLASS: CASE STUDY--APPLICATION OF THE NURSING PROCESS

OBJECTIVES: 7 - A--0; 11 - J

MEASURABLE BEHAVIORS	T	TION A	CONTENT	METHOD
1. Identifies subjective data from the case study and incorporates data into WJC Nursing History Form. 2. Identifies objective data from the case study and incorporates data into WJC Physical Assessment Form. 3. Compares subjective and objective data to appropriate forms. 4. Identifies data that might be considered outside of normal limits. Circles this data on appropriate form. 5. Identifies possible relationships between data. 6. Assigns meaning to data based on knowledge of behavioral and biological sciences. 7. Identifies nursing diagnoses. 8. Supports each diagnosis with subjective and objective data given in case study. 9. Identifies nursing goal for each diagnosis. 0. Begins a plan of nursing intervention for each diagnosis 1. Writes a profile for Susie Smartz.	x x x x x x x x x x x x x x x x x x x		I. Subjective Data II. Objective Data III. Interpretating Data IV. Nursing Diagnoses V. Nursing Goals VI. Nursing ActionsPlans VII. Profile BIBLIOGRAPHY: 1. Susie Smartz Case Study.	Discussion

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# WILLIAM JEWELL COLLEGE Department of Nursing Education N: 250 SPRING 1981

DATE: WEEK III - FRIDAY, FEBRUARY 13, 1981 - 7:50-9:30 A.M.
CLASS: INTERPERSONAL CONCEPTS
08JECTIVES: 10.A,B; 13.J

		MOITAL		
MEASURABLE BEHAVIORS	C	<u> </u>	ONTENT	METHOD
Miller.  Explain the relationship of self-awareness to communication.  Define "therapeutic use of self."  Describe characteristics of the healthy self as identified by Sorenson and Luckman.  Explain the following concepts as they relate to understanding the self: a) body image b) self-concept c) self-esteem d) self-ideal.  Describe the concept of selective perception.  IBLIOGRAPHY:  Miller et al Alive & Aware Minneapolis: Interpersonal Communication Programs, Inc., 1977, pp. 29-98  Sorenson and Luckman Basic Nursing pp. 12-21.  Sundeen, Sandra et al Nurse-Client Interaction St. Louis: C.Y. Mosby, Co., pp. 41-68	x x x x		B. Therapeutic use of self	Handouts Lecture Discussion Bibliography

DATE: WEEK IV - MONDAY, FEBRUARY 16, 1981 - 7:50-9:30 A.M. COMMUNICATION .

OBJECTIVES: 10.C,D,E,F; 13.J

· · ·	CITIA				
MEASURABLE BEHAVIORS	-c	4	Λ	CONTENT	METHOD.
1. Cescribe the basic components of a communication model. 2. Discuss the communication process as described by Sutterley. 3. List the factors that influence communication. 4. List the factors that influence communication. 5. Define: metacommunication, message, feedback, connatation, & denotation. 6. List the criteria for successful communication as outlined by Davis. 7. Identify types of helpful characteristics as described by the authors of your text. 8. Identify personal and environmental factors which contribute to distortion of messages. 8. Describe blocks to communication as stated in your text. 8. Identify skills that facilitate communication (Sorenson & Luckman). 8. Identify problem-solving communication skills. 8. Define "self-disclosure." 8. Davis, Ann "The Skills of Communication," AJN 63:1 (Jan.1963) pp. 66-70. 8. Miller et al. Alive and Aware Minneapolis: Interpersonal Communication Programs Inc., 1977, pp. 53-93. 8. Sorenson and Luckman Basic Nursing pp. 22-47 8. Sundeen, S. et al Nurse-Client Interaction St. Louis: C.V. Mosby, Co., 1976, pp. 68-95	x x x x x x x x x x x x x x x x x x x				Lecture Assigned Bib.

### NURSING 250-SPRING '81

DATE: WEEK IV - Thursday, February 19, 1981 - 7:50--9:35 AM

CLASS: CULTURAL THEORY - APPLICATION TO NURSING

OBJECTIVES: 9 - A--E; 11 - J

METERODOR DELIAMIONS		EVALUATIO				
MEASURABLE BEHAVIORS	C	I	Α		CONTENT	METHOD
<ol> <li>Identifies the three components in Kleinman's model of health care.         <ul> <li>A. Professional</li> <li>B. Popular</li> <li>C. Folk</li> </ul> </li> <li>Applies Kleinman's model to personal health and health behavior.</li> <li>Describes own cultural characteristics using Byrne's structural variables.</li> <li>Describes dominant American cultural values which influence heal and health behavior.</li> <li>Describes the relationship between dominant cultural beliefs and the definition of health, stress and illness.</li> <li>Identifies the differences between overt and covert culture.</li> <li>Applies concepts of culture in the nursing interview.</li></ol>	th	X X X X X		A. Cultural B. Ethnocer C. Dominant II. Kleinman's N II. Overt Cultur A. Sex B. Religior C. Ethnic C D. Educati E. Relatior F. General IV. Covert Cultu Y. Norms and Be VI. Application BIBLIOGRAPHY: 1. Leininger, N New York and Chap 2. Smoyak, Shir Nurse's 3. Byrne, Maric	versus variant role orientations todel  ral Characteristics (structural variables) proup n nal health characteristics proup nal	Blend. -62) on the 237-7.

DATE: WEEK IV - Friday - February 20. 1981 - 7:50--9:35 AM
- Monday - February 23, 1981 - 7:50--9:35 AM
LAB: WEEK V
CLASS: DEVELOPMENTAL THEORY

OBJECTIVES: 10 - A - H; 11 - J -

		JATION	<u> </u>	
MEASURABLE BEHAVIORS	- C	r j A	ONTENT	METHOD
Describes human development using a systems framework. List two differences between the traditional approach and Frank's approach to human development. Describes the characteristics of a process. Differentiates between process and stage theories of development. Lists the four competencies acquired by the developing person. Identifies developmental components within the nursing history. Applies norms of physical growth and development in assessing the individual. Applies knowledge of family relationships in assessing the individual. Applies knowledge of developmental tasks in assessing the individual. Applies Piaget's theory of cognitive development in assessing the individual. Applies Erickson's theory of psychosocial development in assessing the individual. Applies Freud's theory of psychosocial development in assessing the individual. Assesses the communication process of the individual. Assesses the communication process of the individual. Assesses the individual's creative needs. Records the developmental characteristics of individuals of various age groups.	)		I. Review of Developmental Concepts II. Traditional versus L. Frank's Approach to Human Development III. Competencies of the Developing Person IV. Use of the Nursing History to Collect Developmental Data V. Examples of Application A. An infant B. A young adult BIBLIOGRAPHY:  1. Sutterley & Donnelly. Perspectives in Human Developmental D	pment. iii (Friday) otion Throug

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## WILLIAM JEWELL COLLEGE Department of Nursing Education NURSING 250-SPRING '81

DATE: WEEK V - Thursday, February 26, 1981

CLASS: WELLNESS THEORY

OBJECTIVES: 11 - J; 13 - A--G

i	EVALU		TION 1	
MEASURABLE BEHAVIORS	C	I	A	CONTENT METHOD
<ol> <li>Verbalizes Dunn's concept of high-level wellness.</li> <li>Verbalizes Dunn's concept of health.</li> <li>Compares Dunn's concepts of health and wellness.</li> <li>Duplicates Dunn's health grid.</li> <li>Explains movement (direction) implied in Dunn's health grid.</li> <li>Identifies the five concepts in Dunn's "nature of man."</li> <li>Identifies the types of energy manifested by man according to Dunn.</li> <li>Verbalizes the implications of high-level wellness for health care professionals.</li> <li>Assesses personal wellness behaviors and factors affecting them.</li> <li>Utilizes systems-developmental-stress (SOS) model in assessing wellness behaviors in the individual.</li> <li>BIBLIOGRAPHY:</li> <li>Dunn, Halbert. "What High-Level Wellness Means," Canadian Journal of Public Health. 50:11 (Nov. 59):447-457 (Bib pac.</li> <li>Dunn, Halbert. "High=Level Wellness in the World of Today," Journal of ADA. 61 (Aug. '62):978-987. (Bib packet)</li> <li>Chrisman, Riehl. "The Systems Developmental Stress Model," Conceptual Models for Nursing Practice. New York: Appleton-Century-Crofts. 1974, pp. 245-251. (Bib packet)</li> </ol>	ket)	******		I. Definitions of Health II. Definition of high-level wellness.  A. Integrated B. Maximizing C. Potential D. Purposeful Direction E. Environment III. Compare Dunn's concepts of health to wellness A. Illness preventionhealth B. Health promotionwellness C. Wellness-Illness continuum IV. Dunn's Health Grid V. Assessment of Wellness A. Nature of man B. Types of energy VI. Implications of high-level wellness for health care professionals A. Systems Developmental Stress Model B. Wellness Inventory

DATE: NEEK Y - FEBRUARY 27, 1981 - 7:50-9:30 A.M.
CLASS: CONCEPTS OF STRESS
OBJECTIVES: 1.A; 3.B; 7.A,B,C; 11.C

MERSUPABLE BEHAVIORS		ALU/	TION	1	CONTENT .	METHOD
1. Identifies and describes components of Seyle's General Adaptation Syndrome. 2. Differentiates eustress from distress and gives examples of each. 3. Identifies four (4) sources of stress as described by authors of your text. 4. Describe and give examples of adaptation at the physiological level, the psychological level, and the sociocultural level. 5. Explain the characteristics of adaptation as outlined in your text. 6. Identify basic characteristics of homeostatic mechanisms. 7. Explain "negative feedback." 8. Describe the two theories of the origin of circadian rhythms. 9. Give two (2) examples of disruption of circadian rhythms. 10. Define "biofeedback."  BIBLICSPAPHY:  "Byrne and Thompson Key Concepts for the Study & Practice of Nursing St. Louis: C.V. Mosby, 1972, pp. 41-66	x x x	X X X XXXXX	x	111.	A. Definition of stress B. Characteristics of stress C. Eustress vs. distress D. Components of stress response SELYE'S STRESS SYNDROME (GENERAL ADAPTATION SYNC A. Alarm phase B. Resistance phase C. Exhaustion phase	Lecture Class discussion Assigned Bib.

NURSING 250-SPRING '81

DATE: WEEK VI - Monday, March 2, 1981 - 7:50--8:30 AM

CLASS: INTRODUCTION TO ASSESSMENT

OBJECTIVES: 5 - F; 7 - C, D, E; 11 - J

MEASURABLE BEHAVIORS		ALU/	A	CONTENT	METHOD
<ol> <li>Identifies the evolution of the nurse's role in physical assessment.</li> <li>Verbalizes the components of nursing history.</li> <li>Identifies types of data needed for client history.</li> <li>Collects data for nursing history;</li> <li>Verbalizes use of nursing history in planning care of the client.</li> <li>Defines palpation, observation, percussion and auscultation.</li> <li>Demonstrates basic techniques of inspection, palpation, auscultation and percussion.</li> <li>Bibliography:</li> <li>Bates, Barbara. A Guide to Physical Examination. J. B. Lippincott Co., pp. 1-42; 376-380, 1979.</li> <li>Sorensen and Luckmann. Basic Nursing. W. B. Saunders Co., 1979; 204-214; 220-238; 214-224.</li> <li>SUPPLEMENTAL:</li> <li>Malasanos, Lois. Health Assessment. C.V. Mosby Co., pp. 1-117 419-435, 1977.</li> <li>Fowkes, Militam Jr. and Virginia Hunn. Clinical Assessment for the Nurse Practitioner. C.V. Mosby Co., 1973, pp. 1-32.</li> </ol>	1	XXXXXX		I. Evolution of Nurse's Role in Physical Assessment II. Client History A. Medical B. Nursing III. Types of Data Needed A. Biological B. Interpersonal C. Intrapersonal IV. Selection of Data Collection Guide V. Use of Nursing History VI. Overview of Assessment VII. Basic Technique of Physical Assessment A. Observation B. Auscultation C. Palpation D. Percussion	Class Discussion Film

DATE: WEEK VI - Monday, March 2, 1981 - 8:30--9:35 AM

CLASS: ASSESSMENT OF INTEGUMENT

OJBECTIVES: 5 -; 13 - D; 11 - J

MEASURABLE BEHAVIORS		I	A		CONTENT	PETHOD
1. Verbalizes the three layers of the skin. 2. Demonstrates competence in assessment of the skin, including: A. Color B. Vascularity C. Identification and correct description of lesions D. Turgor and Presence of edema E. Moisture F. Temperature G. Texture H. Thickness 3. Demonstrates competence in inspection and palpation of A. Hair B. Fingernails and toenails A. Describes findings utilizing appropriate terminology.  BIBLIOGRAPHY:  1. Bates, Barbara. A Guide to Physical Examination. Cott Co., pp. 43-51; 381-382.	<b>x</b>	x		I. II. IV. V.	Observation A. Color and vascularity B. Lesions  Palpation A. Temperature B. Moisture C. Turgor D. Texture	Lecture Discussion Slides

NURSING 250-SPRING '81

DATE: WEEK VI - Thursday, March 5, 1981 - 7:50--9:35 AM

CLASS: ASSESSMENT OF WELLNESS-ENVIRONMENT

OBJECTIVES: 13 - E; 11 - J

MEASURABLE BEHAVIORS			ATION	CONTENT	LIETURE
1. Differentiate between internal and external environment. 2. Define environment using several sources. 3. Verbalize two major purposes for identifying environmental factors. 4. Identify salient factors in assessing the extended environment. 5. Relate how age, mobility and sensory deficits of client affect environmental safety. 6. List four questions nurse would ask in assessing client's state of orientation. 7. List comfort factors to be assessed in client's environment. 8. Describe the essential elements in the infection chair. 9. Define the following terms: A. Asepsis B. Medical asepsis C. Surgical asepsis D. Disinfectant E. Antiseptic F. Germicide G. Fungicide H. Nosocomial I. Sterilization		, xx xx x xxx		I. Immediate Environment A. External versus internal environment B. Definition of environment C. Classification of environmental factors D. Impact of factors E. Purpose in identifying factors II. Extended Environment A. Salient factors B. Impact of factors III. Safety Factors A. Age B. State of mobility C. Object arrangement D. Sensory deficits E. Orientation/Disorientation IV. Comfort Factors A. Temperature of environment V. Controlling Spread of Infection A. Handwashing B. Cleaning methods	NETHOO Lecture Discussion Videotape
10. Identify steps in handwashing technique. 11. Demonstrate competence in handwashing technique.	-	××		BIBLIOGRAPHY:  1. Sorenson & Luckmann. <u>Basic Nursing</u> . pp. 521-537.  2. Sutterley. <u>Perspectives in Human Developments</u> .  pp. 267-300. (Reserve)	

NURSING 250-SPRING '81

DATE: WEEK VII - Monday,
- Tuesday,
- Wednesday,
- Thursday,
- Thursday,
CLASS: ASSESSMENT OF WELLNESS: VITAL SIGNS
LAB: COMPETENCY: VITAL SIGNS

		ATION		
MEASURABLE BEHAVIORS	C _1	ΙΛ	CONTENT	METHOD
. Identify components of Chrisman Riehl Model.	ä			Lecture Discussion
. Define body temperature.	- 1.5	1		Laboratory
. State the normal body temperature Explain physiologically how the following mechanisms function in	1^	1	B. Heat production	experience
<ul> <li>Explain physiologically how the following mechanisms function in temperature regulation.</li> </ul>	١٠	1	C. Heat loss	exper rence
A. Vasoconstriction, vasodilation	1^		D. Temperature regulating mechanisms	
B. Increased and decreased metabolism	i	1	E. Course and types of fever	
C. Increased and decreased muscular activity	- 1	1	F. Equipment	
D. Increased and decreased thyroid production	- 1	1	G. Temperature measurement technique	
State the location of the hypothalmus and explain how it functions	- 1	1	H. Symptoms of elevated temperature	
in maintaining body temperature.	١×	1	III. Pulse	
. Describe at least five symptoms that occur with:	l î		A. Physiology	
A. An increase in body temperature.	- 1"	1	B. Sites	
B. A decrease in body temperature.	- 1	1	C. Factors causing variations in pulse	
. Identify and discuss the effects of each of the following on body	- 1	1	D. Factors to observe in taking pulse	
temperature:	×	1	E. Pulse deficit	
A. Infection	- 1	1	IV. Respiration	
B. Extreme emotion	- 1		A. Physiology	
C. Environmental temperature	- 1		B. Factors causing variations in respirations	
D. Food intake	- 1	1	C. Observations:	
E. Muscular activity	- 1	1	1. Rate	
F. Time of the day	- 1	]	2. Rhythm	
G. Old age	1	1	3. Depth	
H. Drugs; i.e., aspirin	- 1		4. Breathing sounds	
I Menstrual cycle	- 1	1	5. Color	
. Identify:	×	}	D. Technique	
A. The three methods of taking temperature and equipment needed	×		V. Blood Pressure	
B. The normal range of each method in Centigrade/Fahrenheit.		1	A. Physiology	
C. Reason for variation in range according to method.		1	B. Factors that influence blood pressure	
. Identify the correct method of taking temperature in the following	g	1	C. Technique	
situation and explain your reasons:	- 1		VI. Observing Vital Signs in Various Age Groups	
	- 1	1		
i de la companya de		1		

Nursing 250-Spring '81

Page 2 - continued . . .

Date: Week VII - Monday - Thursday - March 9 - 12

				TION		<del></del>
	MEASURABLE BEHAVIORS	<u> </u>	I	ΙΑ	CONTENT	METHOD
10. 11. 12. 13.	A. An adult with mouth surgery B. A newborn C. An unconscious client D. A six-year-old with diarrhea who is mouth breathing E. An adult with a fractured femur Define the following terms: antipyretic pyrexia fever intermittent fever hyperpyrexia constant/continued fever hyperthermia remittent fever hyperthermia febrile afebrile Demonstrate competency in measuring and recording (3-6-9-min) an individual's body temperature and compare your findings with the normal range. Describe three nursing measures that may be taken to reduce an elevated temperature. Define pulse. List and locate six points on the body where pulse can be pal- pated or auscultated. Identify how the following factors affect rate, rhythm, and/or volume of the pulse and give reason for each: A. Fear B. Rest in bed C. Running D. Increased metabolism E. Age	C	x x x x		BIBLIOGRAPHY:  1. Sorensen, Luckmann. <u>Basic Nursing</u> . pp. 626-692.  2. Chrisman, Marilyn and John Riehl. "Systems-Developmen Model," <u>Conceptual Models for Nursing Practice</u> . by John P. Riehl and Sister Callistra Roy, New Yey Appleton-Century-Crofts, 1974, 247-266. (Bib pact	ntal Stress rk:
	F. Decreased metabolism G. Increased blood volume H. Obesity I. Sex J. Decreased blood volume K. Eating L. Posture					

Date: Week VII - Monday - Thursday - March 9 - 12

	MEASURABLE BEHAVIORS	T	TICN	CONTENT	NETHON
17. 18.	Locate the site to take an apical pulse. Obtain a pulse deficit State the normal pulse rate in adults.  Define the following terms and identify as rate, rhythm, or volume observations:  A. Tachycardia  B. Bradycardia C. Arrhythmia D. Dicrotic E. Weak (thready) F. Pulse deficit G. Fibrillate H. Intermittent 1. Sounding Define external and internal respiration.  Lemonstrate the skill of measuring an individual's respiration and observing for depth, rate, rhythm and noise.  State the normal respiratory rate in adults.  Explain how each of the following affect respirations and the reason for it:  A. High altitude B. Increased metabolic rate C. Decreased metabolic rate C. Decreased metabolic rate C. Age E. Fear F. Rest	xxx			
23.	G. Smoking H. Peor posture Define the following terms: A. Hypernea D. Orthopnea G. Anoxia J. Apnea B. Stertorous E. Cheyne-stokes H. Hypoxia K. Retraction C. Dyspnea F. Stridor I. Cyanosis L. Hypoventil	x			

## WILLIAM JEWELL COLLEGE Department of Nursing Education Nursing 250-Spring '81

Page 4 - continued . . .

Date: Week VII - Monday - Thursday - March 9 - 12

		EVA	LUA	TION		
	ME ASURABLE BEHAVIORS	С	T	A	ONTENT	N=THOD
3.	M. Hyperventilation O. Bradypnea P. Tachypnea					
١.	Define blood pressure.	1 1	×			
5.	List and locate the parts of the sphymomanometer (aneroid and mercury type).		x			
	List and demonstrate all aspects of technique that are necessary to obtain an accurate blood pressure.		x			
	Describe the physiologic principles related to generation of the Korotkoff sounds.		x			
9.	Locate the areas of the body where blood pressure can be obtained Define the following terms:  A. Auscultation F. Hypotension B. Palpation G. Pulse pressure C. Diastole H. Vasoconstriction D. Systole I. Vasodilation E. Hypertension	d <b>.</b>	X			
).	Discuss the five factors that maintain normal blood pressure: A. Peripheral resistance B. Pumping action of the heart C. Blood volume D. Viscosity of the blood E. Elasticity of the vessel walls		x			
l. ?.	State the normal blood pressure level in adults. Using MurrayZentner text determine normal vital signs for a neonate, an infant, a preschooler, a school age child, and a person in later maturity.		x			

### NURSING 250-SPRING '81

DATE: WEEK VII - Thursday - March 12, 1981 - 7:50--9:35 AM

CLASS: PROFESSIONALISM; CONSUMERISM
OBJECTIVES: 6 - A, B, C; 11 - J

ME ASURABLE SEHAVIORS	ALUAT		CONTENT	hiethung.
1. Describe the major provisions in the Patient's Bill of Rights for hospitalized patients and mental patients.  2. Define the following: A. Informed consent B. Patient advocacy C. Continuity of care D. Consumer 3. List the ways a patient can give his consent for treatment. 4. Discuss aspects of the concept of continuity of care. 5. Identify from the readings rationale for increasing consumer participation in health care.  3. BIBLIOGRAPHY: 1. Ellis & Hartley. Nursing in Today's World. J. B. Lippincott Co., 1980, pp. 197-249. 2. Sorensen & Luckmann. Basic Nursing. 1979, pp. 358-363. 3. Kelly, Lucie Young. "The Patient's Right to Know," Nursing Outlook. 24:1(January 1976)26-32. 3. Kramer, Marlene. "The Consumer's Influence on Health Care," Nursing Outlook. 20:9(September 1972):574-578.	XX XX	II. III. IV.	Review of Major Concepts Related to Consumerism  Marlene Kramer - Consumers Influence on Health Care: A. Active participation B. Increased consumer participation  Nursing and Consumerism A. Growth B. Self help C. Competence  ChristensonConsumer Action in Health Care A. Informed consent  Patient's Bill of Rights	Lecture Discussion Handouts

DATE: WEEK VII - Friday, March 13, 1981 - 7:50--9:35 AM

CLASS: CHANGE THEORIES

OBJECTIVES: 8 - A, B, C; 11 - J

			TION			
MEASURABLE BEHAVIORS	- c	I	Α		CONTENT	METHOD
1. Verbalizes various definitions of change. 2. Describes reactions to change: A. Neutral B. Counterproductive C. Affirmative D. Negative 4. Discusses the need for change in nursing. A. Drift B. Traditional C. Planned 5. Compares planned change and unplanned change. 6. Describes Lippett & Lewin theories of change. 7. Identifies phases in the change process.  BIBLIOGRAPHY: 1. Mauksch, Miller. Implementing Change in Nursing. pp. 1-49. (R. Reinkemeyer, Agnes M. "Nursing's Need: Commitment to an Ideology Nursing Forum. IX:4 (1970):340-355 (Bib packet). 3. Rogers, Janet. "Theoretical Considerations Involved in the Procof Change," Nursing Forum. XII:2 (1973):160-172 (Bib packet).	," ss	XX X XXX)		11.	The Meaning of Change A. Definitions B. Interpretation by: 1. Individual disciplines 2. Nursing C. Reaction to change: 1. Neutral 2. Counterproductive 3. Counterproductive 4. Negative D. Why change as a strand in curriculum Methods of Change A. Lewin theory B. Lippett theory C. Phases of planned change	Discussion Lecture Bibliography

DATE: WEEK VIII - Monday, March 23, 1981 - 7:50--9:35 AM

CLASS: ASSESSMENT OF WELLNESS ADL LAB: WEEK IX

OBJECTIVES: 5 - A, C, D; 11 - J

MEASURABLE BEHAVIORS	EVALUATION C I A	CONTENT	NETHOD_
1. Verbalizes basic principles of skin care. 2. Verbalizes functions of the skin. 3. Verbalizes the effect of age on the skin and its care. 4. Verbalizes the use of soap and detergent in the care of the skin. 5. Verbalizes types of baths and precautions needed for each: A. Tube B. Shower C. Partial D. Complete 6. Verbalizes measures needed in caring for the client's hair. A. Brushing B. Shampoodry/wet C. Cutting D. Shaving 7. Verbalizes correct method of dental care. 8. Verbalizes definition of: A. Caries B. Plaque C. Gingivities 9. Verbalizes correct way to clean eyes. 10. Verbalizes correct way to clean eyes. 11. Verbalizes care of client with eye glasses. 12. Verbalizes methods of caring for eye prothesis. 13. Verbalizes methods of caring for eye prothesis. 14. Defines: A. Effleurage B. Petrissage C. Tapotament 15. Defines body mechanics.	x x x x x x x x x x x x x x x x x x x	I. Activities of Daily Living A. Personal hygiene 1. Bathing 2. Care of hair 3. Oral hygiene 4. Eye care 5. Back rub B. Exercise and activity 1. Body mechanics 2. Range of motion 3. Body alignment C. Nutrition 1. Purpose of food 2. Nurse's role	Class dis- cussion Lab practice Bibliography

### Nursing 250-Spring '81

Page 2 - continued . . . Monday, March 23

		/A 1 14	ATION			
MEASURABLE BEHAVIORS		I I		CONTENT	METHOD	
MEASURABLE BEHAVIORS  Verbalizes definitions of: A. Center of gravity B. Line of gravity C. Base of support D. Posture Verbalizes definition of: A. Flexion B. Extension C. Hyperextension D. Abduction E. Adduction Verbalizes the ten commandments of body mechanics. Verbalizes correct body mechanics when lifting. Verbalizes prupose of range of motion exercises. Verbalizes correct body alignment for patient in: A. Prone Horizontal recumbent B. Supine Dorsal recumbent C. Side lying Lithotomy D. Fowler's Sim's E. Sitting Knee chest Verbalizes the importance of food to people. Verbalizes methods that nurse can use to increase the appetite of client.				BIBLIOGRAPHY:  1. Sorensen & Luckmann. Basic Nursing. W.B. Saunders (1979, pp. 367-428; 451-456; 461-473; 510-511; 538-550-553; 555-625.  2. "Hair Care for the Black Patient," American Journal of Nursing. 76, p. 1781.	)., -547;	

### NURSING 250-SPRING '81

DATE: WEEK VIII - Friday, March 27, 1981 - 7:50--9:35 AM
- Tuesday, March 31, 1981 - 2:25--4:25 PM
- Wednesday, April 1, 1981 - 2:25--4:25 PM
- Thursday, April 2, 1981 - 2:25--4:25 PM
CLASS: ASSESSMENT OF MUSCULOSKELETAL SYSTEM
OBJECTIVES: 5 - F; 11 - J

	EV.	ALU/	ATION		1
MEASURABLE BEHAVIORS	Ç	I	Α	CONTENT	METHOD_
1. Demonstrates the ability to complete a general inspection of the patient. 2. Identifies the gait and stance of the patient. 3. Demonstrates assessment of the jointsrange of motion (ROM) 4. Demonstrates assessment of the muscles. 5. Demonstrates assessment of the cervical spingrange of motion. 6. Demonstrates assessment of the shoulder, elbow, wrist and hand. 7. Demonstrates assessment of the hip, knee, leg, ankle and foot. 8. BIBLIOGRAPHY: 1. Bates, Barbara. A Guide to Physical Examination. pp. 4, 6, 274 414-416.	-X X X X X	X X X X X		I. Methods of Assessing the Musculoskeletal System A. General inspection B. Observation of gait and stance C. Observation of joint motion D. Examination of the muscles E. Examination of the cervical spine F. Examination of the back G. Examination of the shoulder H. Examination of the elbow I. Examination of the wrist J. Examination of the hand K. Examination of the hip L. Examination of the knee M. Examination of the leg N. Examination of the Infant II. Musculoskeletal Assessment of the Infant	Lecture Demonstra- tion

DATE: WEEK IX - Monday, March 30, 1981 - 7:50--9:35 AM

CLASS: PROFESSIONALISM: LEGAL ASPECTS

OBJECTIVES: 8; 11 - J; 12

		ÉVA	i UA	TION	
	MEASURABLE BEHAVIORS		Ţ		CONTENT METHOD
3. 4. 5. 6. 7.	Verbalizes the two major sources of law.  Verbalizes types of laws: A. Criminal B. Civil Defines Tort laws. Defines malfeasance, misfeasance and nonfeasance. Defines negligence and malpractice Verbalizes components necessary for malpractice action in a nursing situation.  Verbalizes circumstances that affect negligent conduct for the nurse.  Verbalizes understanding of the concept of Respondent Superior.  Verbalizes the meaning of: A. Slander B. Libel C. False Imprisonment			Α	LEGAL ASPECTS  1. Sources of Law II. Types of Law A. Criminal III. Tort Law IV. Negligence and Malpractice V. Respondent Superior VI. Violation of Client's Legal Rights A. Slander and libel B. False imprisonment C. Invasion of privacy D. Assault and battery VIII. Nurse Practice Acts IX. Nurse Practice Acts A. Responsibilities B. Education
10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21.		tion	X		C. Licensure  X. Nurse Practice Acts A. Missouri Act B. State Board of Nursing C. Licensure 1. Examination 2. Endorsement 3. Revoking of license D. Education  XI. Certification  BIBLIOGRAPHY: 1. Ellis, Janice & Celia Hartley. Nursing in Today's World-Change-

### NURSING 250-SPRING '81

DATE: WEEK IX - Friday, April 3, 1981 - 7:50--9:35 AM ASSESSMENT OF PHYSIOLOGICAL WELLNESS - CHEST LAB: BREAST EXAM; BREATH SOUNDS; CHEST ASSESSMENT

OBJECTIVES: 5 - F; 13 - D; . 11 - J

		EVALUA		
MEASURRELE BEHAVIORS	С	I	Α	CONTENT METHOD
MEASURABLE BEHAVIORS  NOTE: APPLICABALE TO ADULT & CHILD  1. Identifies techniques and instruments needed for assessment of thorax. 2. Identifies structures of breast, thorax and lungs. 3. Demonstrates examination of male and female breast utilizing: A. Correct positioning B. Correct technique (pads of fingers, pattern) C. Identifies normal findings 4. Demonstrates examination of thorax and lungs utilizing: A. Correct positioning of client B. Utilizing landmarks	X X X X	X X X X	X X X	I. Techniques and Instruments for the Examination of Thorax, Lungs, Breast A. I.A.P.P. B. Stethoscope II. Overview of Anatomy of: A. Lungs B. Thorax (chest wall) III. Examination of: A. Thorax and Lungs 1. General approach
C. Comparison of sides  5. Verbalizes four factors to look for in inspection of thorax.  6. Demonstrates inspection of thorax in various settings.  7. Verbalizes purpose of palpation of thorax.  8. Demonstrates palpation of thorax in various settings.  9. Verbalizes purpose of percussion of thorax.  10. Identifies normal percussion notes.  11. Demonstrates percussion of thorax in various settings.  12. Defines normal breath sounds  13. Verbalizes purpose of auscultation of breath sounds  14. Demonstrates auscultation of chest in various settings.  15. Identifies normal breath sounds  16. Utilizes thorax (lungs and breast) assessment competencies in implementing the nursing process with individuals in clinical settings.  BIBLIOGRAPHY:  1. Bates, Barbara. A Guide to Physical Examination. pp. 112-138; 186-199; 403-5.	x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x	×	a. position of client, lighting b. compare one side with the other c. landmarks  2. Inspection a. the configuration of the thorax b. the rate and pattern of respiration c. the movement of thorax during respiration d. The non-respiratory movements within the chest  B. Breast  1. Inspection a. position of client b. color symmetry, skin characteristics, etc.  2. Palpation a. position of client b. pads of fingers c. pattern of examination d. variations e: male breast f. identifying areas of tenderness g. assess observed abnormalities h. assess respiratory excursions i. elicit vocal and tactile fremitus

### WILLIAM JEWELL COLLEGE Department of Nursing Education Nursing 250-Spring '81

Page 2 - continued . . . Date: April 3, Assessment of Physiological Wellness--Chest

	EVALUATION		T T
MEASURABLE BEHAVIORS	CITIA	CONTENT	METHOD
RECOMMENDED READINGS:		•	
1. Traver, Gayle "Assessment of Thorax and Lungs," ANN 73:3 (March 1973): 466-471.			
<ol> <li>Littman, David "Stethoscopes and Auscultation," <u>AJN.</u> 72:7(July 1972):1238-41.</li> </ol>			
<ol> <li>"Assessment: Examining the Chest,"         <u>Nursing '75</u>, August 1975: 12-14.</li> </ol>			
		-	

### TOT

## WILLIAM JEWELL COLLEGE Department of Nursing Education

NURSING 250-SPRING '81

DATE: WEEK X - Monday - April 6, 1981 - 7:50--8:30 AM

CLASS: PROFESSIONALISM: THEORIES, HISTORY AND RESEARCH

OBJECTIVES: 11 - C, I, J

		EVALUATION			<u> </u>
MEASURABLE BEHAVIORS	C	L	Α	CONTENT	METHOD
<ol> <li>Identifies the significance of theory development for nursing practice.</li> <li>Identifies the commonalities found in most nursing theories.</li> <li>Yerbalizes the central concepts in each major theory of nursing</li> </ol>		x	x	I. Introduction A. Scientific basis for practice B. Significance of theory development II. Commonalities	Lecture Handout Discussion
<ol> <li>Verbalizes the central concepts in each major theory of nursing</li> <li>Identifies the relationship between nursing theory and research</li> </ol>		X		A. Nursing B. Client C. Health D. Relationships among these	
BIBLIOGRAPHY:				III. Specific Theorists A. Interpersonal	
<ol> <li>"Conference on the Nature of Science in Nursing,"         <u>Nursing Research</u> 18 (September-October 1969):388-400.</li> </ol>				1. Oʻrlando 2. Henderson 3. King	
				B. Self care 1. Orem C. Wholistic	
				1. Levine 2. Rogers D. Adaptation	
				1. Peplau 2. Murray 3. Roy	
				4. Murphy E. Behaviorist _ 1. Dorothy Johnson	
				F. Others 1. Dorothy Smith 2. Abdella 3. Nordmark-Rohvedec	
				G. The systems-developmental stress model	

DATE: WEEK X - Monday - April 6, 1981 - 8:40--9:35 AM

CLASS: NURSING RESEARCH: AN OVERVIEW

OBJECTIVES: 12 - A, B

			ATION	
MEASURABLE BEHAVIORS	c	IJ	A	CONTENT METHOD
<ol> <li>Identifies the relevance of research for the profession of nursing.</li> <li>Identifies the affect of major historical studies on the evaluation of nursing.</li> <li>Identifies the aim and purpose of research in nursing.</li> <li>BIBLIOGRAPHY:</li> <li>Schlotfeldt, Rozella. "Reflections on Nursing Research," AJN. Vol. 60, No. 4, April 1960, pp. 492-494.</li> <li>McManus, R. Louise. "Nursing Research: Its Evaluation," AJN. Vol. 61, No. 4, April 1961, pp. 76-79.</li> </ol>		x xx		I. Overview of Research Method A. Descriptive B. Historical C. Experimental II. Relation of Research to Professional Characteristics and Theory Development III. Historical Perspective A. Winslow-Goldmark Report B. Nurses, Patients and Pocketbooks C. Nursing for the future (Esther L. Brown) D. Community college; education for nursing (Mildred Montag) E. Abstract for action (Jerome Lysaught)

NURSING 250-SPRING '81

DATE: WEEK X - Friday, April 10, 1981 - 7:50--9:35 AM

CLASS: ASSESSMENT OF PHYSIOLOGICAL WELLNESS-CARDIOVASCULAR

LAB: WEEK XI

03JECTIVES: 5 - F: 13 - D: 11 - J

MEASURABLE BEHAVIORS		LUAT	ION		CONTENT	METHOD
(NOTE: APPLICABLE TO ADULT AND CHILD)  1. Verbalizes anatomy of C.V. System  2. Verbalizes inspection techniques for the heart and demonstrates their use  3. Verbalizes palpation techniques for the heart and demonstrates these to find P.M.I. and peripheral pulses  4. Verbalizes percussion techniques for the heart and demonstrates these to locate the right and left border of cardiac duliness  5. Verbalizes major areas used in auscultation of the heart and demonstrates auscultation techniques used in locating the four areas  6. Defines first and second heart sounds and recognizes them on auscultation  7. Defines cardiac output  8. Defines EKG  9. Explains the electric conduction system of the heart  0. Verbalizes the significance of the basic components of the EKG complex  1. Defines:  A. P-R Interval  B. P-R Segment  C. R-S Interval  D. S-T Segment  E. I - Waves  F. I Segment  G. I-P Interval  2. Verbalizes definition of horizontal and vertical axis of EKG graph  3. Defines isoelectric line  4. Defines isoelectric line  4. Defines negative and positive deflections  5. Explains 12 lead EKG  A. Limb leads  B. Augmented leads  C. Chest leads  C. Computes heart rate from EKG Tracing  7. Recognizes rhythm deviations in EKG Tracing	x	x x x x x x x x x x x x x x x x x x x		1. 111. 11. 11. 11. 11. 11. 11. 11. 11.	A. P.M.I./Apical impulse B. Peripheral pulses Percussion A. Area of cardiac dullness B. Limitations Auscultation A. Areas used 1. Aortic 2. Pulmonary 3. Triscupid 4. Mitral B. Heart Sounds 1. First heart sound 2. Second heart sound 3. Third heart sound 4. Fourth heart sound Cardiac Output A. Stroke volume B. Rate	Film Bibliograph Class Dis- cussion Lab Experi- ence

Nursing 250-Spring '81

Page 2 - continued . . . Friday, April 10

Class: Assessment of Physiological Wellness - CV

MEASURABLE CEHAVIORS	VALUATION CONTEN	T METHOD
BIBLIOGRAPHY:  1. Bates, Barbara. A Guide to Physical Examination. J.B. Lippincott Co., 1979, pp. 139-185; 257-271; 406-408.  SUGGESTED READINGS:  1. Lehmann, Sister Janet: "Auscultation of Heart Sounds," 72:7 (July): 1242-1246.	C. Components of EKG comple  1. P, Q, R, S, T, U Mave 2. P-R Segment 3. P-R Interval 4. R-S Interval 5. S-T Segment 6. T Waves 7. Q-T Segment 8. T-P Interval D. Significance of graph 1. Horizontal axis - vol 2. Vertical axis - time 3. Isoelectric line 4. Positive - negative d E. Define 12 lead EKG 1. Bipolar - Limb leads 2. Unipolar a. Augmented level l b. Chest leads f. Assessment of EKG 1. Rate 2. Rhythm	tage

DATE: WEEK XI - Monday, April 13, 1981 - 7:50--9:35 AM

CLASS: HISTORICAL PERSPECTIVE OF MODERN NURSING

OBJECTIVES: 8; 11 - J; 12

		EVA	LUA	TION			
	ME ASURABLE BEHAVIORS	C				CONTENT	NETHOD
1.	Verbalizes major aspects of Florence Nightingale's early life.		x		I.	Florence Nightingale	1
2.	Verbalizes contributions made by Florence Nightingale during	1				A. Early Life	1
	and following the Crimean War.		х			B. Kaiserworth	1
3.	Verbalizes the situation of nursing in the USA prior to Civil					C. Crimean War	i
	War.		X	[ :		D. Nightingale School for Nurses	
	Verbalizes effect of Civil War on nursing in the USA.	1	X			E. Contributions to British Army	1
5.				1	11.		
_	during the Civil War.		×	l		A. Approach to health care	ļ
٥.	Explains the public health movement in the USA in the late		_	l		B. Place of women Civil War in USA	l
7	19th Century.  Verbalizes the first school of nursing in the USA.	i	3	l	111.	A. Mother Beckerdyke	l
۷٠	Verbalizes the contribution made by individuals during the early	1 1	^	Ì		B. Georgianna Woolsey	ì
٥.	years of professional nursing in the USA.			ŀ	l	C. Elizabeth Woolsey	
Q	Comprehends the role of various organizations contributing to	1	^	Ì		D. Dorothea Lynde Dix	
٠.	nursing in the early 1900's.					E. Louisa May Alcott	l
10.			X i		IV.	Public Health Movement in USA	,
11.		.	x I		V.	Schools of Nursing in USA	}
12.	Comprehends the effect of World War II on nursing in the USA.	1	x			A. First school of nursingNew England Hospital at	Boston
13.			x			B. First recognized collegiate school of nursing	
14.	Explains the advances made in nursing due to World War II.		х			University of Minnesota	
15.	Explains the major factors impacting nursing following World				VI.	Individuals Influential in Nursing in USA in Early Y	ars
	War II.	1	X			A. Linda Richards	l
16.	Explains the basic premise of the Position Paper.		х			B. Mary Mahoney	
						C. Isabel Hampton Robb	•
RIRL	IOGRAPHY:			l '		D. Mary Adelaide Nutting E. Lillian Wald	1
1.	Kalisch, Beatrice and Philip Kalisch, "Slaves, Servants or Sain	s		i i	VII	Spanish American War	l
	(an Analysis of the System of Nursing Training in the US	1		1	viii.		1
	1873-1948)," <u>Nursing Forum</u> . XIV:3:1975, 223-260.				l '''''	A. I.C.N.	1
2.	Ellis, Janice and Celia Hartley. Nursing Today-Challenges-Issue	s		1	l	B. A.J.N.	ł
	and Trends. Philadelphia: J. B. Lippincott Co., 1980, 11-3	·		1	ŀ	C. A.N.A.	i
		i 1		l	I	D. N.L.N.	1
		1 1		l		E. White House Conferences	Ī

Nursing 250-Spring '81

Page 2 - continued . . .

Date: Week XI - Monday - April 13

	<u>EV</u>	ALU	ATION	_I		1
ME ASURABLE BEHAVIORS	C	I	A	<b></b>	CONTENT	METHO
				X. XI. XII.	Effect of World War I on Nursing A. Demand for nurses B. Army school for nurses Goldmark Report Influence of Depression on nursing Influence of World War II A. Bolton Bill B. Army Cadet Corps First Two Decades Following World War II A. Licensure for LPN B. Men in nursing C. Hill Burton Bill D. Esther Lucille Brown E. AD Programs Events Following World War II Last Decade A. Position Paper B. Expanded Role C. Growth of Collegiate Education	

NURSING 250-SPRING '81

DATE: WEEK XI - Friday, April 17, 1931 - 7:50--9:35 AM - Tuesday, April 28, 1981 - 2:25--4:25 PM - Wednesday, April 29, 1981 - 2:25--4:25 PM - Thursday, April 30, 1981 - 2:25--4:25 PM CLASS: ASSESSMENT OF THE NEUROLOGICAL SYSTEM

OBJECTIVES: 5 - F; 11 - J

			TION		1
MI ASURABLE BEHAVIORS	C	ĪĪ	Α	CONTENT	METHOD
NOTE: APPLICABLE TO ADULT AND CHILD					1
1. Verbalizes techniques and instruments utilized in the assessment of the neurological system.  2. Demonstrates the use of techniques and instruments needed.  3. Verbalizes the structures and their functions involved in the neurological assessment.  4. Verbalizes components involved in assessing cerebral functioning.  5. Demonstrates examinations of cerebral functioning.  6. Verbalizes three types of cerebral dysfunction.  7. Verbalizes the cranial nerves.  8. Demonstrates examinations of cranial nerve functioning.  9. Verbalizes components involved in assessing cerebellar functioning.  10. Demonstrates examinations of cerebellar functioning.  11. Verbalizes components involved in assessing motor functioning.  12. Demonstrates examinations of motor functioning.  13. Verbalizes requirements for normal reflex  14. Verbalizes types of reflexes.  15. Verbalizes method for grading reflexes.  16. Demonstrates examinations of reflex testing.  17. Verbalizes components involved in assessing sensory perception.  18. Demonstrates examinations of sensory perception.	x		x x x x	I. Techniques and Instruments for the Neurological Examinations A. Inspection B. Ophthalmoscope, flashlight, tongue blades, reflex hammer, tuning fork, pins II. Neurological Examinations A. Cerebral 1. Level of consciousness 2. Mood 3. Memory 4. Complex functions 5. Cerebral dysfunction 6. Orientation B. Cranial nerve function 1. Olfactory I 2. Optic II 3. Oculomotor III 4. Trochlear IV 5. Trigeminal V 6. Abducens VII 8. Acoustic VII 9. Glossopharyngeal IX 10. Vagus X 11. Accessory X 12. Hypoglossal XII C. Cerebellar 1. Posture and gait, tandem walking 2. Muscle coordination a. rapid alternating movements b. run heel down shin	Lecture Demonstra- tion Film Bibliograph Handouts

### Nursing 250-SPRING '81

Page 2 - continued . . . Week XI - Filiday , April 17

MESCHOSOLE DERBATUDE			TION	
Bates, Barbara. Guide to Physical Examination. pp. 311-358; 416-426.  PPLEMENTAL BIBLIOGRAPHY:  "Patient Assessment: Neurological Examination," Part I, AJN. 75:9 (September 1975):1511 +  "Patient Assessment: Neurological Examination," Part II, AJN. 75:11 (November 1975):2037 +	C	T	A	D. Motor function  1. Muscle size 2. Muscle tone 3. Involuntary movements 4. Muscle strength E. Reflexes 1. Requirements of a normal reaction 2. Types a. Superficial 1) Corneal 2) Pharyngeal 3) Abdominal 4) Cremasteric 5) Plantar b. Deep 1) Biceps 2) Triceps 3) Radial 4) Patellar 5) Achilles c. Abnormal 3. Position of patient for reflex testing 4. Grading reflexes F. Sensory perception 1. Primary forms of sensation a. Perception of light touch b. Superficial and deep pain c. Temperature d. Position e. Vibration 2. Cortical and discrimination forms of sensation a. Two point touch discrimination b. Point localization c. Texture discrimination G. Pediatric reflexes 1. General observations a. Activity b. Positioning c. Cry d. Alertness 2. Reflexes a. Babinski b. Ankle clonus c. Anal reflex d. Blinking (dazzle) reflex e. Acoustic blink reflex f. Palmar grasp g. Rooting h. Placing i. Tonic neck

#### NURSING 250-SPRING '81

DATE: WEEK XII - Friday, April 24, 1981 - 7:50--9:35 AM

CLASS: ASSESSMENT OF PHYSIOLOGICAL WELLNESS--HEAD AND NECK; LAB: WEEK XIII - ASSESSMENT OF HEAD AND NECK

OBJECTIVES: 5 - F; 13 - D; 11 - J

MEAST REBLE BEHAVIORS			TI		CONTENT VICTORO
1. Identifies regions of the head 2. Demonstrates examinations of the cranium, scalp, hair, face 3. Identifies structures of the eye (external anatomy and of eyeball) 4. Demonstrates examinations of the eye including: A. Eyebrows, eyelids, lacrimal apparatus B. Conjunctiva, sclera C. Cornea, lens, iris D. Pupillary reaction E. Extraocular movements F. Alphthalmoscopic examination G. Acuity H. Visual fields 5. Identifies the structures of the ear 6. Demonstrates examinations of the ear A. External ear B. Tympanic membrane 7. Identifies structures of the nose B. Demonstrates examinations of the nose A. External B. Nasal cavity 9. Identifies structures of the mouth and pharynx 10. Demonstrates examinations of the mouth and pharynx 11. Identifies structures of the neck A. Lymph nodes B. Trachea C. Thyroid 12. Describes physical findings using appropriate terminology. 13. IBELIOGRAPHY: 14. Bates, Barbara. A Guide to Physical Examination. J.B. Lippinco Co., 1979, pp. 52-111; 383-403. 15. Patient Assessment: Examination of the Eye, Parts I & II. American Journal of Nursing, Programmed Instruction. 16. Programmed Instruction.	) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	XX	X	x x x x	I. Techniques and instruments A. Inspection, palpation B. Otoscope, ophthalmoscope II. Overview of Anatomy of: A. Head B. Eyes C. Ears D. Nose E. Mouth F. Neck III. Examination of: A. Head I. Cranium, scalp, hair 2. Face, skin B. Eyes I. External structure 2. Eyeball 3. Eye grounds 4. Vision C. Ear I. Auricle 2. Ear canal and tympanic membrane 3. Hearing D. Nose I. External 2. Nasal cavity a. Nasal mucosa b. Septum c. Turbinates E. Mouth and pharynx I. Lips 2. Buccal mucosa 3. Gums, teeth, palate 4. Tongue 5. Pharynx F. Neck I. Lymph nodes 2. Trachea 3. Thyroid

DATE: WEEK XIII - Monday, April 27, 1981 - 7:50--9:35 AM

CLASS: PROFESSIONALISM: ORGANIZATION, ETHICS, ROLES, CHARACTERISTICS OF A PROFESSION, CONTINUING EDUCATION

OBJECTIVES: 11 - A, B, E, F, H, I, J

			EVALUATION		
	MEASURABLE BEHAVIORS		I		CONTENT METHOD
6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	status of nursing. Identify the purpose of each of the three nursing education programs. Identify trends in nursing education. Identify the characteristics of a technical nurse as defined by NLN (1972). Identify ways in which the role of the nurse is changing. Identify the educational preparation role of clinician and practitioner. Identify the role of physician's assistant. Identify the role of post licensing education. Describe the purpose of continuing education. Identify the problem that exists with implementing mandatory continuing education. Identify purposes and functions of the ANA. Identify purposes and functions of the NAN. Identify differences between the two organizations.	nd	X		I. Characteristics of a Profession  II. Nursing Education  A. Diploma programs  B. Baccalaureate programs  C. Associate degree programs  D. Technical nurse  E. Graduate nursing education  F. Relationship between programs  III. Roles of a Nurse  A. Role changes  B. Clinician  C. Practitioner  D. Physician's assistant  E. Legal implications of expanded role  IV. Continuing Education  A. Post licensing education  B. Mandatory versus voluntary continuing education  V. Professional Organizations  A. ANA  B. NLN  C. Certification program  VI. Professional Ethics  A. ANA Code of Ethics  B. Ethical issues

DATE: WEEK XIII - Friday, May 1, 1981 - 7:50--9:35 AM
LAB: Tuesday, May 5, 1981 - 2:25--4:35 PM
Wednesday, May 6, 1981 - 2:25--4:35 PM
Thursday, May 7, 1981 - 2:25--4:35 PM
CLASS: ASSESSMENT OF ABDOMEN

OBJECTIVES: 5 - F: 11 - J

MEASURABLE BEHAVIORS			IAT ION	CONTENT	NETHOD
1. Identifies the location of the four quadrants of the abdomen. 2. Inspects the abdomen for symmetry, general contour, visible masses and condition of the skin. 3. Auscultates the abdomen identifying bowel sounds. 4. Demonstrates percussion of the abdomen in a routine sequence identifying the liver and spleen location and size. 5. Demonstrates light and deep palpation of the abdomen. 6. Demonstrates palpation of the liver. 7. Identifies location of the gall bladder. 8. Demonstrates the ability to palpate the kidneys. 9. Demonstrates the ability to palpate the spleen. 0. Demonstrates palpation of the stomach. 1. Demonstrates palpation of the stomach. 1. Demonstrates palpation of the shadl and large intestine. 3. Demonstrates the ability to palpate the bladder. 4. Identifies the presence of hernias by observation and palpation. 8BIBLIOGRAPHY: 1. Bates, Barbara. A Guide to Physical Assessment. pp. 200-220; 407-410.	x	X X X X X X X		I. Assessment of the Abdomen A. Landmarks B. Quadrants/Regions C. Preparations of the client D. Inspection 1. Skin 2. Contour 3. Distension 4. Movement E. Auscultation 1. Peristalsis 2. Vascular 3. Peritoneal friction rub 4. Muscular activity F. Percussion 1. Order of Exam 2. Sounds elicited 3. Liver 4. Spleen 5. Stomach G. Palpation 1. Light/deep 2. Liver 3. Spleen 4. Kidneys 5. Urinary Bladder	Lecture Demonstra- tion Film Handout Bibliograph

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## WILLIAM JEWELL COLLEGE Department of Nursing Education

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Date: May 1, - Assessment of Abdomen

West of the second of the seco	EVALUATI	ON			
ME ASURABLE BEHAVIORS	C T A	-	<u> </u>	METHOD	
		1	6. Pancreas 7. Gallbladder 8. Large and small intestines 9. Hernia  II. Pre & Post Natal Assessment A. Inspection B. Auscultation C. Palpation  II. Infant Assessment A. Preparation B. Inspection C. Auscultation D. Percussion E. Palpation 1. Liver 2. Spleen 3. Phyloric Tumor 4. Kidneys 5. Rectus muscle 6. Hernias  IV. Disorders of GI Tract A. Excessive gastric secretions B. Hidtal hernias C. Small intestine D. Large intestine		

DATE: WEEK XIV - Monday - May 4, 1981 - 7:50--9:35 AM

CLASS: ASSESSMENT OF THE REPRODUCTIVE SYSTEMS: FEMALE AND MALE

OBJECTIVES: 5 - F; 11 - J

		EVALUATION				7
MEASURABLE BEHAVIORS	C	I	Α		CONTENT	METHOD
<ol> <li>Discusses ovulation and its impact on the menstrual cycle.</li> <li>Identifies contraceptual methods which affect ovulation.</li> <li>Demonstrates competence in examining the female reproductive system—identifies deviations from normal.</li> <li>Verbalizes process of spermatogenesis.</li> <li>Demonstrates competence in the examination of the male genitalia and hernias—identifies deviations from normal.</li> <li>Verbalizes common causes of infertility, diagnostic tests and treatments.</li> <li>BIBLIOGRAPHY:</li> <li>Bates, Barbara. A Guide to Physical Examination. pp. 221-256</li> <li>"Programmed Instruction: Exam of Female Pelvis," Part I, AJN. 78:10:1-26; Part II, AJN. 79:4:689-716.</li> </ol>	x x x	X X X		11.	Female Reproductive System A. Review of A & P 1. Puberty, menarche, climacteric 2. Menstrual cycle 3. Contraceptive methods based on menstrual cycle a. oral contraceptives b. natural family planning methods B. Techniques of exam C. Common variations in findings Male Reproductive System A. Review of A & P 1. External genitalia 2. Internal genitalia 3. Spermatogenesis B. Techniques of Exam C. Common variations in findings Infertility A. Male B. Female	Lecture Charts Films